RMP
EXH. 85

Carol Hunter
Sur-Surrebuttal Testimony
Updated Table Page 10

| Pump Size | | | | | |
|---|---|---|---|---|---|
| Horsepower | Kilowatts | Costs | Benefits @ $55 | Net Benefit |
| 30 | 22.38 | $ 1,799.50 | $ 1,239.75 | $ (559.75) |
| 35 | 26.11 | $ 1,892.75 | $ 1,446.38 | $ (446.37) |
| 40 | 29.84 | $ 1,986.00 | $ 1,653.00 | $ (333.00) |
| 45 | 33.57 | $ 2,079.25 | $ 1,859.63 | $ (219.62) |
| 50 | 37.3 | $ 2,172.50 | $ 2,066.26 | $ (106.24) |
| 75 | 55.95 | $ 2,638.75 | $ 3,099.38 | $ 460.63 |

1. Incentives are based on $25/kW-yr
2. Delivery Costs include $640 for a control unit, plus $600 for field and back office support
3. Benefits are based on $73/kW-yr adjusted for losses (10.39%) and the ratio of the sum of the non-coincidental peaks at the generation level and irrigations contribution to system peak.

Ex. 85

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Total Retail Average Rates

12 Months Ending 6/30/10

| | | | |
|---|---|---|---|
| 168 | Black Hills Power | MT | 4.92 |
| 167 | Southwestern Public Service | TX | 5.13 |
| 166 | MidAmerican Energy | SD | 5.27 |
| 165 | PacifiCorp | WY | 5.57 |
| 164 | AEP (Wheeling Power Rate Area) | WV | 5.59 |
| 163 | Public Service Company of Oklahoma | OK | 5.73 |
| 162 | Idaho Power Company | OR | 5.82 |
| 161 | Southwestern Public Service | NM | 5.91 |
| 160 | Southwestern Electric Power Company | AR | 5.95 |
| 159 | OG&E Electric Services | AR | 5.95 |
| 158 | MidAmerican Energy | IA | 6.01 |
| 157 | Montana-Dakota Utilites Company | MT | 6.01 |
| 156 | AmerenUE | MO | 6.02 |
| 155 | MidAmerican Energy | IL | 6.08 |
| 154 | PacifiCorp | ID | 6.21 |
| 153 | Minnesota Power Company | MN | 6.27 |
| 152 | Southwestern Electric Power Company | TX | 6.32 |
| 151 | Entergy Gulf States, Inc. | LA | 6.41 |
| 150 | Indianapolis Power & Light Company | IN | 6.41 |
| 149 | Black Hills Power | WY | 6.42 |
| 148 | Otter Tail Power Company | MN | 6.52 |
| 147 | Duke Energy Carolinas | SC | 6.53 |
| 146 | Superior Water, Light & Power Company | WI | 6.54 |
| 145 | PacifiCorp | WA | 6.54 |
| 144 | Kansas City Power & Light - L&P (formerly Aq | MO | 6.60 |
| 143 | Southwestern Electric Power Company | LA | 6.62 |
| 142 | Entergy Texas | TX | 6.65 |
| 141 | Idaho Power Company | ID | 6.68 |
| 140 | PacifiCorp | UT | 6.68 |
| 139 | Montana-Dakota Utilities Company | ND | 6.69 |
| 138 | AEP - Indiana Michigan | MI | 6.69 |
| 137 | Louisville Gas & Electric Company | KY | 6.69 |
| 136 | AEP (Appalachian Power Rate Area) | WV | 6.69 |
| 135 | AEP (Kingsport Power Rate Area) | TN | 6.71 |
| 134 | Entergy Louisiana, Inc. | LA | 6.71 |
| 133 | AEP (Indiana Michigan Power) | IN | 6.72 |
| 132 | Kentucky Utilities Company | KY | 6.76 |
| 131 | AEP (Kentucky Power Rate Area) | KY | 6.83 |
| 130 | AEP (Ohio Power Rate Area) | OH | 6.90 |
| 129 | Monongahela Power Company | WV | 6.97 |
| 128 | Otter Tail Power Company | SD | 6.98 |
| 127 | Northern States Power Company (MN) | ND | 7.05 |
| 126 | Avista Corp. | ID | 7.14 |
| 125 | Otter Tail Power Company | ND | 7.14 |
| 124 | PacifiCorp | OR | 7.24 |
| 123 | Wisconsin Public Service Corporation | MI | 7.25 |
| 122 | Westar Energy-KGE | KS | 7.27 |
| 121 | Montana-Dakota Utilities Company | WY | 7.28 |
| 120 | Kansas City Power & Light Company | MO | 7.34 |
| 119 | Duke Energy Carolinas | NC | 7.35 |
| 118 | OG&E Electric Services | OK | 7.39 |
| 117 | Northwestern Energy (formerly Northwestern | SD | 7.43 |
| 116 | Duke Energy Indiana | IN | 7.43 |
| 115 | Old Dominion Power Company | VA | 7.44 |
| 114 | Empire District Electric Company | OK | 7.49 |
| 113 | Northern States Power Company (MN) | SD | 7.57 |
| 112 | Potomac Edison Company | WV | 7.59 |
| 111 | West Penn Power Company | PA | 7.71 |
| 110 | Northern Indiana Public Service Company | IN | 7.83 |
| 109 | Duke Energy Kentucky | KY | 7.87 |
| 108 | Avista Corp. | WA | 7.87 |
| 107 | Entergy Mississippi, Inc. | MS | 7.88 |
| 106 | Westar Energy-KPL | KS | 7.89 |
| 105 | PPL Utilities Corp. | PA | 7.90 |
| 104 | Empire District Electric Company | AR | 7.96 |
| 103 | Northern States Power Company (MN) | MN | 8.17 |
| 102 | Progress Energy Carolinas, Inc. | SC | 8.21 |
| 101 | Pennsylvania Electric Company | PA | 8.22 |
| 100 | Dominion North Carolina Power | NC | 8.25 |
| 99 | Black Hills Power | SD | 8.27 |
| 98 | Entergy Arkansas, Inc. | AR | 8.33 |
| 97 | Empire District Electric Company | KS | 8.37 |
| 96 | Mississippi Power Company | MS | 8.38 |
| 95 | Empire District Electric Company | MO | 8.39 |
| 94 | Kansas City Power & Light Company | KS | 8.43 |
| 93 | Montana-Dakota Utilities Company | SD | 8.43 |



Ex. 86

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Total Retail Average Rates

12 Months Ending 6/30/10

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 92 | Dominion Virginia Power | VA | 8.46 | 54 | PacifiCorp | CA | 10.66 |
| 91 | Georgia Power Company | GA | 8.50 | 53 | New York State Electric & Gas Corporation | NY | 10.73 |
| 90 | AEP (Appalachian Power Rate Area) | VA | 8.55 | 52 | Sierra Pacific Power Company | NV | 10.77 |
| 89 | Northern States Power Company (WI) | MI | 8.59 | 51 | Madison Gas & Electric Company | WI | 10.77 |
| 88 | Cheyenne Light, Fuel & Power Company | WY | 8.63 | 50 | Duquesne Light Company | PA | 10.78 |
| 87 | Public Service Company of Colorado | CO | 8.64 | 49 | Commonwealth Edison Company | IL | 10.88 |
| 86 | AEP (Columbus Southern Power Rate Area) | OH | 8.74 | 48 | Tampa Electric Company | FL | 11.16 |
| 85 | Kansas City Power & Light - MPS (formerly Aq | MO | 8.78 | 47 | Nevada Power Company | NV | 11.17 |
| 84 | Alabama Power Company | AL | 8.79 | 46 | Gulf Power Company | FL | 11.22 |
| 83 | Northern States Power Company (WI) | WI | 8.84 | 45 | PECO Energy | PA | 11.23 |
| 82 | Toledo Edison Company | OH | 8.85 | 44 | Rochester Gas & Electric Corporation | NY | 11.60 |
| 81 | Wisconsin Public Service Corporation | WI | 8.90 | 43 | Duke Energy Ohio | OH | 11.71 |
| 80 | Portland General Electric Company | OR | 8.94 | 42 | National Grid (Niagara Mohawk Power Corpor | NY | 11.83 |
| 79 | We Energies (formerly Wisconsin Electric) | MI | 8.98 | 41 | Upper Peninsula Power Company | MI | 11.83 |
| 78 | Tucson Electric Power Company | AZ | 8.99 | 40 | Northwestern Wisconsin Electric Company | WI | 11.92 |
| 77 | Progress Energy Carolinas, Inc. | NC | 9.01 | 39 | Pike County Light & Power Company | PA | 12.01 |
| 76 | NorthWestern Energy (formerly Montana Pow | MT | 9.13 | 38 | Progress Energy Florida | FL | 12.09 |
| 75 | Puget Sound Energy | WA | 9.33 | 37 | Granite State Electric Company | NH | 12.14 |
| 74 | Dayton Power & Light Company | OH | 9.34 | 36 | Green Mountain Power Company | VT | 12.24 |
| 73 | Black Hills/Colorado Electric (formerly Aquila | CO | 9.40 | 35 | Sierra Pacific Power Company | CA | 12.35 |
| 72 | Entergy New Orleans, Inc. | LA | 9.40 | 34 | Cambridge Electric Company | MA | 12.39 |
| 71 | CLECO Power LLC | LA | 9.49 | 33 | Baltimore Gas & Electric Company | MD | 12.61 |
| 70 | Southern Indiana Gas & Electric Company | IN | 9.49 | 32 | Delmarva Power | DE | 12.78 |
| 69 | South Carolina Electric & Gas Company | SC | 9.56 | 31 | Central Vermont Public Service Corporation | VT | 13.02 |
| 68 | El Paso Electric Company | TX | 9.58 | 30 | UGI Utilities, Inc. | PA | 13.09 |
| 67 | WP&L | WI | 9.59 | 29 | Delmarva Power | MD | 13.65 |
| 66 | USA | | 9.84 | 28 | Pacific Gas & Electric Company | CA | 13.74 |
| 65 | Ohio Edison Company | OH | 9.89 | 27 | Unitil Energy Systems, Inc. | NH | 13.86 |
| 64 | We Energies (formerly Wisconsin Electric) | WI | 10.05 | 26 | Southern California Edison | CA | 13.89 |
| 63 | Cleveland Electric Illuminating Company | OH | 10.11 | 25 | Massachusetts Electric Company | MA | 14.24 |
| 62 | Detroit Edison Company | MI | 10.12 | 24 | Narragansett Electric Company | RI | 14.33 |
| 61 | Florida Power & Light Company | FL | 10.16 | 23 | Bangor Hydro-Electric Company | ME | 14.41 |
| 60 | Potomac Edison Company | MD | 10.24 | 22 | Central Hudson Gas & Electric Corporation | NY | 14.46 |
| 59 | Metropolitan Edison Company | PA | 10.27 | 21 | Potomac Electric Power Company | MD | 14.60 |
| 58 | Consumers Energy | MI | 10.35 | 20 | Potomac Electric Power Company | DC | 14.70 |
| 57 | Pennsylvania Power Company | PA | 10.38 | 19 | Atlantic Electric | NJ | 14.85 |
| 56 | El Paso Electric Company | NM | 10.57 | 18 | Public Service Company of New Hampshire | NH | 15.03 |
| 55 | Arizona Public Service Company | AZ | 10.58 | 17 | Maine Public Service Company | ME | 15.21 |

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Total Retail Average Rates

12 Months Ending 6/30/10

| | | | |
|---|---|---|---|
| 16 | Public Service Electric & Gas Company | NJ | 15.76 |
| 15 | Boston Edison Company | MA | 15.88 |
| 14 | Jersey Central Power & Light Company | NJ | 15.97 |
| 13 | Orange & Rockland Utilities, Inc. | NY | 16.02 |
| 12 | San Diego Gas & Electric Company | CA | 16.25 |
| 11 | Rockland Electric Company | NJ | 16.54 |
| 10 | Commonwealth Electric Company | MA | 16.85 |
| 9 | Fitchburg Gas & Electric Light Company | MA | 17.47 |
| 8 | LIPA | NY | 17.49 |
| 7 | United Illuminating Company | CT | 20.50 |
| 6 | Hawaiian Electric Company | HI | 21.10 |
| 5 | Consolidated Edison Company of New York | NY | 22.58 |
| 4 | Maui Electric Company (Maui) | HI | 26.62 |
| 3 | Hawaii Electric Light Company | HI | 32.03 |
| 2 | Maui Electric Company (Molokai) | HI | 33.61 |
| 1 | Maui Electric Company (Lanai) | HI | 35.22 |

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Residential Average Rates

12 Months Ending 6/30/10

| | | | |
|---|---|---|---|
| 171 | AEP - Indiana Michigan | MI | 6.88 |
| 170 | Idaho Power Company | OR | 6.97 |
| 169 | PacifiCorp | WA | 7.05 |
| 168 | OG&E Electric Services | AR | 7.06 |
| 167 | Montana-Dakota Utilities Company | ND | 7.08 |
| 166 | MidAmerican Energy | SD | 7.11 |
| 165 | Public Service Company of Oklahoma | OK | 7.14 |
| 164 | AmerenUE | MO | 7.18 |
| 163 | Southwestern Public Service | NM | 7.33 |
| 162 | Southwestern Electric Power Company | AR | 7.38 |
| 161 | Kentucky Utilities Company | KY | 7.45 |
| 160 | Southwestern Electric Power Company | LA | 7.51 |
| 159 | Southwestern Electric Power Company | TX | 7.52 |
| 158 | Louisville Gas & Electric Company | KY | 7.59 |
| 157 | Indianapolis Power & Light Company | IN | 7.60 |
| 156 | Black Hills Power | WY | 7.60 |
| 155 | Otter Tail Power Company | ND | 7.64 |
| 154 | AEP (Appalachian Power Rate Area) | WV | 7.72 |
| 153 | Montana-Dakota Utilites Company | MT | 7.75 |
| 152 | Kansas City Power & Light - L&P (formerly Aq | MO | 7.75 |
| 151 | Southwestern Public Service | TX | 7.76 |
| 150 | AEP (Kingsport Power Rate Area) | TN | 7.78 |
| 149 | Otter Tail Power Company | MN | 7.84 |
| 148 | AEP (Kentucky Power Rate Area) | KY | 7.87 |
| 147 | AEP (Wheeling Power Rate Area) | WV | 7.89 |
| 146 | Avista Corp. | WA | 7.89 |
| 145 | Entergy Gulf States, Inc. | LA | 7.92 |
| 144 | Northern States Power Company (MN) | ND | 7.96 |
| 143 | Black Hills Power | MT | 7.99 |
| 142 | Old Dominion Power Company | VA | 7.99 |
| 141 | Empire District Electric Company | OK | 8.04 |
| 140 | Entergy Louisiana, Inc. | LA | 8.05 |
| 139 | Entergy Texas | TX | 8.06 |
| 138 | Northwestern Energy (formerly Northwestern P | SD | 8.16 |
| 37 | Idaho Power Company | ID | 8.20 |
| 36 | Avista Corp. | ID | 8.22 |
| 35 | Otter Tail Power Company | SD | 8.23 |
| 34 | Duke Energy Carolinas | SC | 8.23 |
| 133 | MidAmerican Energy | IL | 8.24 |
| 132 | Entergy Mississippi, Inc. | MS | 8.25 |
| 131 | PacifiCorp | WY | 8.27 |
| 130 | MidAmerican Energy | IA | 8.37 |
| 129 | Potomac Edison Company | WV | 8.38 |
| 128 | AEP (Indiana Michigan Power) | IN | 8.39 |
| 127 | PacifiCorp | ID | 8.39 |
| 126 | PacifiCorp | OR | 8.44 |
| 125 | Monongahela Power Company | WV | 8.54 |
| 124 | Duke Energy Kentucky | KY | 8.57 |
| 123 | Montana-Dakota Utilities Company | WY | 8.64 |
| 122 | PacifiCorp | UT | 8.67 |
| 121 | Duke Energy Carolinas | NC | 8.78 |
| 120 | Empire District Electric Company | KS | 8.85 |
| 119 | Minnesota Power Company | MN | 8.99 |
| 118 | Kansas City Power & Light Company | MO | 9.05 |
| 117 | Duke Energy Indiana | IN | 9.09 |
| 116 | Montana-Dakota Utilities Company | SD | 9.11 |
| 115 | West Penn Power Company | PA | 9.11 |
| 114 | Westar Energy-KGE | KS | 9.12 |
| 113 | OG&E Electric Services | OK | 9.12 |
| 112 | AmerenCILCO | IL | 9.15 |
| 111 | Black Hills Power | SD | 9.16 |
| 110 | Northern States Power Company (MN) | SD | 9.20 |
| 109 | AEP (Ohio Power Rate Area) | OH | 9.26 |
| 108 | Westar Energy-KPL | KS | 9.31 |
| 107 | AmerenCIPS | IL | 9.33 |
| 106 | Empire District Electric Company | AR | 9.42 |
| 105 | NorthWestern Energy (formerly Montana Powe | MT | 9.45 |
| 104 | Kansas City Power & Light Company | KS | 9.48 |
| 103 | Northern States Power Company (WI) | MI | 9.61 |
| 102 | Empire District Electric Company | MO | 9.61 |
| 101 | Superior Water, Light & Power Company | WI | 9.66 |
| 100 | Progress Energy Carolinas, Inc. | SC | 9.66 |
| 99 | Tucson Electric Power Company | AZ | 9.67 |
| 98 | Puget Sound Energy | WA | 9.74 |
| 97 | Dominion North Carolina Power | NC | 9.81 |
| 96 | Entergy Arkansas, Inc. | AR | 10.01 |

Edison Electric Institute

# Average Rates

(in cents/kilowatthour)

## Ranking of Residential Average Rates

12 Months Ending 6/30/10

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 95 | Wisconsin Public Service Corporation | MI | 10.08 | 57 | Consumers Energy | MI | 12.21 |
| 94 | Portland General Electric Company | OR | 10.10 | 56 | Gulf Power Company | FL | 12.22 |
| 93 | AEP (Appalachian Power Rate Area) | VA | 10.13 | 55 | Rochester Gas & Electric Corporation | NY | 12.45 |
| 92 | Kansas City Power & Light - MPS (formerly Aq | MO | 10.14 | 54 | Southern Indiana Gas & Electric Company | IN | 12.49 |
| 91 | Georgia Power Company | GA | 10.21 | 53 | Northwestern Wisconsin Electric Company | WI | 12.51 |
| 90 | Dominion Virginia Power | VA | 10.43 | 52 | Duke Energy Ohio | OH | 12.57 |
| 89 | Progress Energy Carolinas, Inc. | NC | 10.45 | 51 | Pennsylvania Power Company | PA | 12.64 |
| 88 | Northern States Power Company (MN) | MN | 10.45 | 50 | We Energies (formerly Wisconsin Electric) | WI | 12.71 |
| 87 | CLECO Power LLC | LA | 10.47 | 49 | Detroit Edison Company | MI | 12.85 |
| 86 | Public Service Company of Colorado | CO | 10.48 | 48 | Wisconsin Public Service Corporation | WI | 12.86 |
| 85 | Potomac Edison Company | MD | 10.50 | 47 | Sierra Pacific Power Company | NV | 13.16 |
| 84 | AmerenIP | IL | 10.58 | 46 | We Energies (formerly Wisconsin Electric) | MI | 13.16 |
| 83 | Entergy New Orleans, Inc. | LA | 10.62 | 45 | Nevada Power Company | NV | 13.18 |
| 82 | Pennsylvania Electric Company | PA | 10.68 | 44 | Sierra Pacific Power Company | CA | 13.24 |
| 81 | Northern Indiana Public Service Company | IN | 10.81 | 43 | Progress Energy Florida | FL | 13.60 |
| 80 | AEP (Columbus Southern Power Rate Area) | OH | 10.83 | 42 | Pike County Light & Power Company | PA | 13.65 |
| 79 | Florida Power & Light Company | FL | 10.85 | 41 | Duquesne Light Company | PA | 13.71 |
| 78 | Cheyenne Light, Fuel & Power Company | WY | 10.87 | 40 | UGI Utilities, Inc. | PA | 13.74 |
| 77 | Northern States Power Company (WI) | WI | 10.87 | 39 | Potomac Electric Power Company | DC | 13.91 |
| 76 | Alabama Power Company | AL | 10.88 | 38 | Granite State Electric Company | NH | 14.20 |
| 75 | Ohio Edison Company | OH | 10.95 | 37 | Unitil Energy Systems, Inc. | NH | 14.38 |
| 74 | Dayton Power & Light Company | OH | 11.00 | 36 | Delmarva Power | DE | 14.47 |
| 73 | PPL Utilities Corp. | PA | 11.00 | 35 | Massachusetts Electric Company | MA | 14.51 |
| 72 | El Paso Electric Company | TX | 11.15 | 34 | Madison Gas & Electric Company | WI | 14.56 |
| 71 | PacifiCorp | CA | 11.27 | 33 | Central Vermont Public Service Corporation | VT | 14.61 |
| 70 | Arizona Public Service Company | AZ | 11.41 | 32 | PECO Energy | PA | 14.65 |
| 69 | Mississippi Power Company | MS | 11.43 | 31 | Delmarva Power | MD | 14.91 |
| 68 | Black Hills/Colorado Electric (formerly Aquila N | CO | 11.49 | 30 | Narragansett Electric Company | RI | 15.15 |
| 67 | South Carolina Electric & Gas Company | SC | 11.54 | 29 | Pacific Gas & Electric Company | CA | 15.35 |
| 66 | Commonwealth Edison Company | IL | 11.68 | 28 | Green Mountain Power Company | VT | 15.48 |
| 65 | USA | | 11.74 | 27 | National Grid (Niagara Mohawk Power Corpor | NY | 15.49 |
| 64 | Toledo Edison Company | OH | 11.75 | 26 | Southern California Edison | CA | 15.52 |
| 63 | New York State Electric & Gas Corporation | NY | 11.80 | 25 | Baltimore Gas & Electric Company | MD | 15.61 |
| 62 | El Paso Electric Company | NM | 11.82 | 24 | Potomac Electric Power Company | MD | 15.87 |
| 61 | WP&L | WI | 11.89 | 23 | Atlantic Electric | NJ | 15.90 |
| 60 | Metropolitan Edison Company | PA | 11.98 | 22 | Cambridge Electric Company | MA | 16.02 |
| 59 | Tampa Electric Company | FL | 12.07 | 21 | Central Hudson Gas & Electric Corporation | NY | 16.06 |
| 58 | Cleveland Electric Illuminating Company | OH | 12.16 | 20 | Public Service Company of New Hampshire | NH | 16.33 |

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Residential Average Rates

12 Months Ending 6/30/10

| | | | |
|---|---|---|---|
| 19 | Jersey Central Power & Light Company | NJ | 16.67 |
| 18 | Upper Peninsula Power Company | MI | 16.69 |
| 17 | Maine Public Service Company | ME | 16.77 |
| 16 | Public Service Electric & Gas Company | NJ | 17.07 |
| 15 | Bangor Hydro-Electric Company | ME | 17.11 |
| 14 | Boston Edison Company | MA | 17.14 |
| 13 | Rockland Electric Company | NJ | 17.21 |
| 12 | San Diego Gas & Electric Company | CA | 17.78 |
| 11 | Commonwealth Electric Company | MA | 18.01 |
| 10 | Orange & Rockland Utilities, Inc. | NY | 18.77 |
| 9 | Fitchburg Gas & Electric Light Company | MA | 18.78 |
| 8 | LIPA | NY | 19.54 |
| 7 | United Illuminating Company | CT | 23.32 |
| 6 | Hawaiian Electric Company | HI | 23.95 |
| 5 | Consolidated Edison Company of New York | NY | 24.86 |
| 4 | Maui Electric Company (Maui) | HI | 27.58 |
| 3 | Maui Electric Company (Molokai) | HI | 33.22 |
| 2 | Hawaii Electric Light Company | HI | 33.86 |
| 1 | Maui Electric Company (Lanai) | HI | 34.79 |

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Commercial Average Rates

12 Months Ending 6/30/10

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 170 | Southwestern Public Service | TX | 5.63 | 132 | Westar Energy-KGE | KS | 7.44 |
| 169 | AmerenUE | MO | 5.83 | 131 | Old Dominion Power Company | VA | 7.48 |
| 168 | Public Service Company of Oklahoma | OK | 5.85 | 130 | Kansas City Power & Light Company | KS | 7.52 |
| 167 | Southwestern Electric Power Company | AR | 5.95 | 129 | Empire District Electric Company | OK | 7.55 |
| 166 | Southwestern Electric Power Company | TX | 6.10 | 128 | OG&E Electric Services | OK | 7.59 |
| 165 | OG&E Electric Services | AR | 6.10 | 127 | Northwestern Energy (formerly Northwestern P | SD | 7.65 |
| 164 | MidAmerican Energy | IL | 6.12 | 126 | Pennsylvania Electric Company | PA | 7.71 |
| 163 | Southwestern Public Service | NM | 6.15 | 125 | Duke Energy Indiana | IN | 7.72 |
| 162 | Southwestern Electric Power Company | LA | 6.16 | 124 | AEP (Ohio Power Rate Area) | OH | 7.75 |
| 161 | Idaho Power Company | ID | 6.28 | 123 | Duke Energy Kentucky | KY | 7.79 |
| 160 | Idaho Power Company | OR | 6.37 | 122 | AEP (Kingsport Power Rate Area) | TN | 7.80 |
| 159 | Kansas City Power & Light - L&P (formerly Aq | MO | 6.56 | 121 | Northern States Power Company (MN) | MN | 7.80 |
| 158 | MidAmerican Energy | IA | 6.59 | 120 | West Penn Power Company | PA | 7.82 |
| 157 | PacifiCorp | WA | 6.61 | 119 | Minnesota Power Company | MN | 7.84 |
| 156 | Entergy Texas | TX | 6.68 | 118 | Otter Tail Power Company | ND | 7.87 |
| 155 | Duke Energy Carolinas | SC | 6.77 | 117 | PPL Utilities Corp. | PA | 7.97 |
| 154 | Duke Energy Carolinas | NC | 6.78 | 116 | Otter Tail Power Company | MN | 7.98 |
| 153 | MidAmerican Energy | SD | 6.80 | 115 | Dominion Virginia Power | VA | 8.01 |
| 152 | AEP (Appalachian Power Rate Area) | WV | 6.82 | 114 | Kansas City Power & Light - MPS (formerly Aq | MO | 8.02 |
| 151 | AEP (Wheeling Power Rate Area) | WV | 6.83 | 113 | Avista Corp. | ID | 8.02 |
| 150 | Northern States Power Company (MN) | ND | 6.85 | 112 | Entergy Mississippi, Inc. | MS | 8.03 |
| 149 | PacifiCorp | OR | 6.86 | 111 | Entergy Arkansas, Inc. | AR | 8.03 |
| 148 | Montana-Dakota Utilites Company | MT | 6.92 | 110 | AEP (Kentucky Power Rate Area) | KY | 8.06 |
| 147 | Louisville Gas & Electric Company | KY | 7.00 | 109 | Entergy Louisiana, Inc. | LA | 8.09 |
| 146 | Monongahela Power Company | WV | 7.01 | 108 | Montana-Dakota Utilities Company | ND | 8.14 |
| 145 | PacifiCorp | UT | 7.02 | 107 | Otter Tail Power Company | SD | 8.16 |
| 144 | Kansas City Power & Light Company | MO | 7.03 | 106 | AEP (Appalachian Power Rate Area) | VA | 8.25 |
| 143 | Northern States Power Company (MN) | SD | 7.05 | 105 | Black Hills Power | MT | 8.36 |
| 142 | AEP (Indiana Michigan Power) | IN | 7.07 | 104 | Black Hills Power | SD | 8.40 |
| 141 | PacifiCorp | ID | 7.08 | 103 | Northern States Power Company (WI) | MI | 8.43 |
| 140 | Entergy Gulf States, Inc. | LA | 7.12 | 102 | Indianapolis Power & Light Company | IN | 8.45 |
| 139 | Montana-Dakota Utilities Company | WY | 7.14 | 101 | Cheyenne Light, Fuel & Power Company | WY | 8.45 |
| 138 | Potomac Edison Company | WV | 7.21 | 100 | Portland General Electric Company | OR | 8.47 |
| 137 | Kentucky Utilities Company | KY | 7.26 | 99 | AmerenCILCO | IL | 8.48 |
| 136 | PacifiCorp | WY | 7.29 | 98 | Avista Corp. | WA | 8.48 |
| 135 | AEP - Indiana Michigan | MI | 7.29 | 97 | Public Service Company of Colorado | CO | 8.52 |
| 134 | Superior Water, Light & Power Company | WI | 7.34 | 96 | Empire District Electric Company | MO | 8.53 |
| 133 | Westar Energy-KPL | KS | 7.38 | 95 | AmerenCIPS | IL | 8.53 |

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Commercial Average Rates

12 Months Ending 6/30/10

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 94 | Montana-Dakota Utilities Company | SD | 8.59 | 56 | PacifiCorp | CA | 10.36 |
| 93 | Empire District Electric Company | AR | 8.63 | 55 | Black Hills Power | WY | 10.41 |
| 92 | Georgia Power Company | GA | 8.68 | 54 | Nevada Power Company | NV | 10.52 |
| 91 | Northern States Power Company (WI) | WI | 8.73 | 53 | Tampa Electric Company | FL | 10.53 |
| 90 | Black Hills/Colorado Electric (formerly Aquila N | CO | 8.76 | 52 | Ohio Edison Company | OH | 10.54 |
| 89 | Progress Energy Carolinas, Inc. | SC | 8.76 | 51 | Granite State Electric Company | NH | 10.63 |
| 88 | Progress Energy Carolinas, Inc. | NC | 8.77 | 50 | El Paso Electric Company | TX | 10.65 |
| 87 | AEP (Columbus Southern Power Rate Area) | OH | 8.79 | 49 | Gulf Power Company | FL | 10.72 |
| 86 | Dominion North Carolina Power | NC | 8.82 | 48 | Progress Energy Florida | FL | 10.74 |
| 85 | Baltimore Gas & Electric Company | MD | 8.88 | 47 | Toledo Edison Company | OH | 11.08 |
| 84 | Puget Sound Energy | WA | 8.92 | 46 | Tucson Electric Power Company | AZ | 11.09 |
| 83 | Pennsylvania Power Company | PA | 8.99 | 45 | El Paso Electric Company | NM | 11.24 |
| 82 | AmerenIP | IL | 9.02 | 44 | Pike County Light & Power Company | PA | 11.32 |
| 81 | NorthWestern Energy (formerly Montana Powe | MT | 9.12 | 43 | We Energies (formerly Wisconsin Electric) | MI | 11.38 |
| 80 | Dayton Power & Light Company | OH | 9.16 | 42 | Rochester Gas & Electric Corporation | NY | 11.44 |
| 79 | Entergy New Orleans, Inc. | LA | 9.19 | 41 | Sierra Pacific Power Company | NV | 11.64 |
| 78 | Wisconsin Public Service Corporation | WI | 9.22 | 40 | Delmarva Power | MD | 11.79 |
| 77 | Duquesne Light Company | PA | 9.33 | 39 | Cambridge Electric Company | MA | 11.86 |
| 76 | Mississippi Power Company | MS | 9.38 | 38 | Duke Energy Ohio | OH | 11.86 |
| 75 | Northern Indiana Public Service Company | IN | 9.39 | 37 | Potomac Electric Power Company | MD | 12.17 |
| 74 | Florida Power & Light Company | FL | 9.40 | 36 | Central Hudson Gas & Electric Corporation | NY | 12.34 |
| 73 | Empire District Electric Company | KS | 9.43 | 35 | Delmarva Power | DE | 12.44 |
| 72 | South Carolina Electric & Gas Company | SC | 9.51 | 34 | PECO Energy | PA | 12.48 |
| 71 | Detroit Edison Company | MI | 9.63 | 33 | Green Mountain Power Company | VT | 12.49 |
| 70 | Metropolitan Edison Company | PA | 9.68 | 32 | Cleveland Electric Illuminating Company | OH | 12.50 |
| 69 | Commonwealth Edison Company | IL | 9.69 | 31 | UGI Utilities, Inc. | PA | 12.54 |
| 68 | CLECO Power LLC | LA | 9.96 | 30 | National Grid (Niagara Mohawk Power Corpor | NY | 12.72 |
| 67 | USA | | 9.97 | 29 | Central Vermont Public Service Corporation | VT | 12.90 |
| 66 | Wisconsin Public Service Corporation | MI | 10.05 | 28 | Bangor Hydro-Electric Company | ME | 13.23 |
| 65 | Southern Indiana Gas & Electric Company | IN | 10.05 | 27 | Northwestern Wisconsin Electric Company | WI | 13.35 |
| 64 | Arizona Public Service Company | AZ | 10.11 | 26 | Narragansett Electric Company | RI | 13.39 |
| 63 | WP&L | WI | 10.15 | 25 | Southern California Edison | CA | 13.47 |
| 62 | Alabama Power Company | AL | 10.16 | 24 | Upper Peninsula Power Company | MI | 13.79 |
| 61 | We Energies (formerly Wisconsin Electric) | WI | 10.17 | 23 | Massachusetts Electric Company | MA | 13.87 |
| 60 | Potomac Edison Company | MD | 10.20 | 22 | Atlantic Electric | NJ | 13.98 |
| 59 | Consumers Energy | MI | 10.25 | 21 | Pacific Gas & Electric Company | CA | 13.99 |
| 58 | Madison Gas & Electric Company | WI | 10.28 | 20 | Unitil Energy Systems, Inc. | NH | 14.28 |
| 57 | New York State Electric & Gas Corporation | NY | 10.34 | 19 | Orange & Rockland Utilities, Inc. | NY | 14.44 |

Edison Electric Institute

# Average Rates

(in cents/kilowatthour)

## Ranking of Commercial Average Rates

12 Months Ending 6/30/10

| | | | |
|---|---|---|---|
| 18 | Public Service Company of New Hampshire | NH | 14.45 |
| 17 | Public Service Electric & Gas Company | NJ | 15.14 |
| 16 | Maine Public Service Company | ME | 15.21 |
| 15 | Potomac Electric Power Company | DC | 15.34 |
| 14 | Jersey Central Power & Light Company | NJ | 15.44 |
| 13 | Boston Edison Company | MA | 15.54 |
| 12 | Rockland Electric Company | NJ | 15.65 |
| 11 | Commonwealth Electric Company | MA | 16.13 |
| 10 | San Diego Gas & Electric Company | CA | 16.38 |
| 9 | LIPA | NY | 17.62 |
| 8 | United Illuminating Company | CT | 18.51 |
| 7 | Fitchburg Gas & Electric Light Company | MA | 18.65 |
| 6 | Consolidated Edison Company of New York | NY | 20.55 |
| 5 | Hawaiian Electric Company | HI | 21.67 |
| 4 | Maui Electric Company (Maui) | HI | 27.92 |
| 3 | Hawaii Electric Light Company | HI | 32.54 |
| 2 | Maui Electric Company (Molokai) | HI | 35.96 |
| 1 | Maui Electric Company (Lanai) | HI | 37.78 |

Edison Electric Institute

# Average Rates

(in cents/kilowatthour)

## Ranking of Industrial Average Rates

12 Months Ending 6/30/10

| | | | |
|---|---|---|---|
| 164 | Southwestern Public Service | TX | 3.47 |
| 163 | Public Service Company of Oklahoma | OK | 3.93 |
| 162 | MidAmerican Energy | IL | 4.00 |
| 161 | PPL Utilities Corp. | PA | 4.04 |
| 160 | MidAmerican Energy | IA | 4.08 |
| 159 | Southwestern Public Service | NM | 4.09 |
| 158 | MidAmerican Energy | SD | 4.18 |
| 157 | AmerenUE | MO | 4.25 |
| 156 | AEP (Wheeling Power Rate Area) | WV | 4.39 |
| 155 | Idaho Power Company | OR | 4.49 |
| 154 | PacifiCorp | UT | 4.68 |
| 153 | Duke Energy Carolinas | SC | 4.74 |
| 152 | PacifiCorp | WY | 4.75 |
| 151 | Idaho Power Company | ID | 4.77 |
| 150 | Southwestern Electric Power Company | AR | 4.84 |
| 149 | Black Hills Power | MT | 4.85 |
| 148 | Baltimore Gas & Electric Company | MD | 4.94 |
| 147 | Entergy Gulf States, Inc. | LA | 4.94 |
| 146 | OG&E Electric Services | AR | 4.95 |
| 145 | AEP (Ohio Power Rate Area) | OH | 5.08 |
| 144 | Louisville Gas & Electric Company | KY | 5.08 |
| 143 | Montana-Dakota Utilites Company | MT | 5.10 |
| 142 | Kansas City Power & Light - L&P (formerly Aq | MO | 5.12 |
| 141 | Entergy Texas | TX | 5.12 |
| 140 | OG&E Electric Services | OK | 5.16 |
| 139 | Entergy Louisiana, Inc. | LA | 5.17 |
| 138 | Southwestern Electric Power Company | LA | 5.20 |
| 137 | Avista Corp. | ID | 5.22 |
| 136 | PacifiCorp | ID | 5.24 |
| 135 | PacifiCorp | OR | 5.24 |
| 134 | Duke Energy Carolinas | NC | 5.29 |
| 133 | Southwestern Electric Power Company | TX | 5.30 |
| 132 | Minnesota Power Company | MN | 5.30 |
| 131 | Black Hills Power | WY | 5.32 |
| 130 | AEP (Columbus Southern Power Rate Area) | OH | 5.35 |
| 129 | Northwestern Energy (formerly Northwestern | SD | 5.36 |
| 128 | Montana-Dakota Utilities Company | WY | 5.36 |
| 127 | AEP (Indiana Michigan Power) | IN | 5.38 |
| 126 | AEP (Appalachian Power Rate Area) | WV | 5.38 |
| 125 | Westar Energy-KGE | KS | 5.39 |
| 124 | AEP (Kingsport Power Rate Area) | TN | 5.42 |
| 123 | Kansas City Power & Light Company | MO | 5.43 |
| 122 | AEP (Kentucky Power Rate Area) | KY | 5.45 |
| 121 | Northern States Power Company (MN) | ND | 5.46 |
| 120 | Monongahela Power Company | WV | 5.51 |
| 119 | Otter Tail Power Company | MN | 5.54 |
| 118 | PacifiCorp | WA | 5.55 |
| 117 | Kentucky Utilities Company | KY | 5.64 |
| 116 | Superior Water, Light & Power Company | WI | 5.65 |
| 115 | Wisconsin Public Service Corporation | WI | 5.69 |
| 114 | Northern States Power Company (MN) | SD | 5.72 |
| 113 | Alabama Power Company | AL | 5.74 |
| 112 | AEP - Indiana Michigan | MI | 5.75 |
| 111 | New York State Electric & Gas Corporation | NY | 5.75 |
| 110 | Toledo Edison Company | OH | 5.79 |
| 109 | Duke Energy Indiana | IN | 5.79 |
| 108 | Wisconsin Public Service Corporation | MI | 5.84 |
| 107 | Avista Corp. | WA | 5.85 |
| 106 | Northern Indiana Public Service Company | IN | 5.87 |
| 105 | Public Service Company of Colorado | CO | 5.88 |
| 104 | Cheyenne Light, Fuel & Power Company | WY | 5.90 |
| 103 | Potomac Edison Company | WV | 5.92 |
| 102 | Black Hills Power | SD | 5.94 |
| 101 | Georgia Power Company | GA | 6.00 |
| 100 | Upper Peninsula Power Company | MI | 6.02 |
| 99 | Otter Tail Power Company | SD | 6.04 |
| 98 | Dominion Virginia Power | VA | 6.06 |
| 97 | Dominion North Carolina Power | NC | 6.07 |
| 96 | Pennsylvania Electric Company | PA | 6.09 |
| 95 | Kansas City Power & Light - MPS (formerly Aq | MO | 6.11 |
| 94 | Mississippi Power Company | MS | 6.12 |
| 93 | Dayton Power & Light Company | OH | 6.13 |
| 92 | Indianapolis Power & Light Company | IN | 6.13 |
| 91 | Commonwealth Edison Company | IL | 6.14 |
| 90 | West Penn Power Company | PA | 6.20 |
| 89 | Progress Energy Carolinas, Inc. | SC | 6.24 |

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Industrial Average Rates

12 Months Ending 6/30/10

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 88 | Montana-Dakota Utilities Company | ND | 6.25 | 50 | Cleveland Electric Illuminating Company | OH | 7.49 |
| 87 | Westar Energy-KPL | KS | 6.30 | 49 | Tucson Electric Power Company | AZ | 7.55 |
| 86 | Entergy Mississippi, Inc. | MS | 6.35 | 48 | Orange & Rockland Utilities, Inc. | NY | 7.63 |
| 85 | Old Dominion Power Company | VA | 6.36 | 47 | Florida Power & Light Company | FL | 7.64 |
| 84 | El Paso Electric Company | TX | 6.38 | 46 | Consumers Energy | MI | 7.75 |
| 83 | Northern States Power Company (MN) | MN | 6.39 | 45 | Duquesne Light Company | PA | 7.77 |
| 82 | Northern States Power Company (WI) | WI | 6.46 | 44 | Rochester Gas & Electric Corporation | NY | 7.85 |
| 81 | We Energies (formerly Wisconsin Electric) | MI | 6.48 | 43 | Arizona Public Service Company | AZ | 7.99 |
| 80 | Otter Tail Power Company | ND | 6.49 | 42 | PECO Energy | PA | 8.14 |
| 79 | USA | | 6.51 | 41 | Metropolitan Edison Company | PA | 8.29 |
| 78 | Delmarva Power | DE | 6.57 | 40 | National Grid (Niagara Mohawk Power Corpor | NY | 8.73 |
| 77 | Empire District Electric Company | MO | 6.57 | 39 | Puget Sound Energy | WA | 8.73 |
| 76 | AEP (Appalachian Power Rate Area) | VA | 6.62 | 38 | Green Mountain Power Company | VT | 8.87 |
| 75 | Empire District Electric Company | OK | 6.65 | 37 | Duke Energy Ohio | OH | 8.99 |
| 74 | Entergy Arkansas, Inc. | AR | 6.65 | 36 | Gulf Power Company | FL | 9.07 |
| 73 | South Carolina Electric & Gas Company | SC | 6.67 | 35 | Central Vermont Public Service Corporation | VT | 9.09 |
| 72 | Empire District Electric Company | AR | 6.72 | 34 | Nevada Power Company | NV | 9.30 |
| 71 | Northern States Power Company (WI) | MI | 6.73 | 33 | PacifiCorp | CA | 9.40 |
| 70 | NorthWestern Energy (formerly Montana Pow | MT | 6.74 | 32 | Tampa Electric Company | FL | 9.42 |
| 69 | Duke Energy Kentucky | KY | 6.82 | 31 | Northwestern Wisconsin Electric Company | WI | 9.46 |
| 68 | Detroit Edison Company | MI | 6.86 | 30 | Progress Energy Florida | FL | 9.50 |
| 67 | Portland General Electric Company | OR | 6.89 | 29 | Pacific Gas & Electric Company | CA | 9.66 |
| 66 | Progress Energy Carolinas, Inc. | NC | 6.91 | 28 | Southern California Edison | CA | 9.79 |
| 65 | Empire District Electric Company | KS | 7.02 | 27 | Delmarva Power | MD | 10.09 |
| 64 | Kansas City Power & Light Company | KS | 7.02 | 26 | Atlantic Electric | NJ | 10.32 |
| 63 | El Paso Electric Company | NM | 7.03 | 25 | Cambridge Electric Company | MA | 10.83 |
| 62 | Montana-Dakota Utilities Company | SD | 7.03 | 24 | Central Hudson Gas & Electric Corporation | NY | 10.86 |
| 61 | We Energies (formerly Wisconsin Electric) | WI | 7.05 | 23 | UGI Utilities, Inc. | PA | 11.14 |
| 60 | Ohio Edison Company | OH | 7.07 | 22 | Granite State Electric Company | NH | 11.60 |
| 59 | Entergy New Orleans, Inc. | LA | 7.11 | 21 | Unitil Energy Systems, Inc. | NH | 11.78 |
| 58 | Madison Gas & Electric Company | WI | 7.12 | 20 | Bangor Hydro-Electric Company | ME | 12.08 |
| 57 | CLECO Power LLC | LA | 7.14 | 19 | Massachusetts Electric Company | MA | 12.21 |
| 56 | Southern Indiana Gas & Electric Company | IN | 7.15 | 18 | Narragansett Electric Company | RI | 12.26 |
| 55 | Potomac Edison Company | MD | 7.27 | 17 | Maine Public Service Company | ME | 12.50 |
| 54 | Pennsylvania Power Company | PA | 7.35 | 16 | Jersey Central Power & Light Company | NJ | 13.38 |
| 53 | WP&L | WI | 7.39 | 15 | Commonwealth Electric Company | MA | 13.44 |
| 52 | Black Hills/Colorado Electric (formerly Aquila | CO | 7.41 | 14 | Public Service Company of New Hampshire | NH | 13.50 |
| 51 | Sierra Pacific Power Company | NV | 7.43 | 13 | San Diego Gas & Electric Company | CA | 13.51 |

Edison Electric Institute

# Average Rates

(In cents/kilowatthour)

## Ranking of Industrial Average Rates

12 Months Ending 6/30/10

| | | | |
|---|---|---|---|
| 12 | Boston Edison Company | MA | 13.84 |
| 11 | Public Service Electric & Gas Company | NJ | 14.07 |
| 10 | LIPA | NY | 14.24 |
| 9 | Rockland Electric Company | NJ | 15.25 |
| 8 | Fitchburg Gas & Electric Light Company | MA | 16.12 |
| 7 | United Illuminating Company | CT | 16.65 |
| 6 | Hawaiian Electric Company | HI | 18.64 |
| 5 | Consolidated Edison Company of New York | NY | 18.70 |
| 4 | Maui Electric Company (Maui) | HI | 24.37 |
| 3 | Hawaii Electric Light Company | HI | 27.74 |
| 2 | Maui Electric Company (Molokai) | HI | 29.72 |
| 1 | Maui Electric Company (Lanai) | HI | 33.51 |

**Monsanto Data Request 1.24**

Please provide a history of all curtailments and/or interruptions made to Monsanto for the years 2001 through 2009, inclusive. Please detail the time and date of the curtailment or interruption, the amount and reason (economic curtailment, operating reserves, system integrity, etc.).

**Response to Monsanto Data Request 1.24**

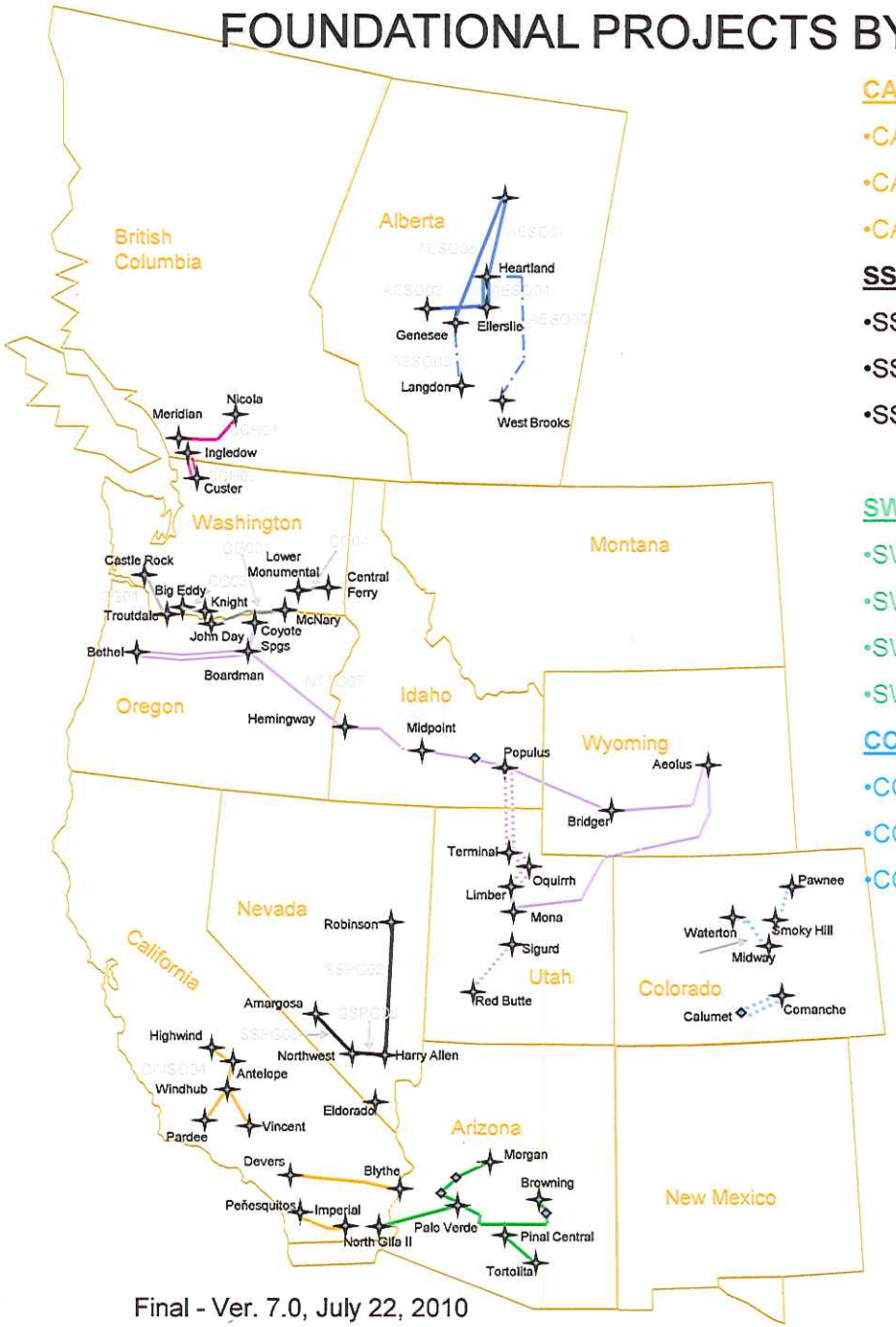
Please refer to Confidential Attachment Monsanto 1.24. Confidential information is provided subject to the terms and conditions of the protective agreement in this proceeding.

Recordholder: Thomas E. Beck
Sponsor: Gregory N. Duvall

| Type | Date | Beg & End Time PPT | Duration Hrs | MW | YTD Interruptions |
|---|---|---|---|---|---|
| Sytem Integrity Interruption | 2/14/08 | 0855-1052 | 1.95 | 116 | 1 |

| Allowed Number of Interruptions |
|---|
| Max of 12 interruptions in Year<br>Max 2 consecutive hours in any 48 hour period per Double Contingency event |

# FOUNDATIONAL PROJECTS BY 2020




Final - Ver. 7.0, July 22, 2010

**CAISO**

- CAISO02 Sunrise
- CAISO03 Blythe-Devers
- CAISO04 Tehachapi Upgrade

**SSPG**

- SSPG02 SWIP South
- SSPG05 TCP Harry Allen - Northwest
- SSPG06 TCP Northwest – Amargosa

**SWAT**

- SWAT01 PV-NG#2
- SWAT06 Pinal Central – Tortolita
- SWAT07 Southeast Valley (SEV)
- SWAT08 PV - Morgan

**CCPG**

- CCPG02 Pawnee – Smoky Hill
- CCPG03 Waterton- Midway
- CCPG04 San Luis Valley

**NTTG**

- NTTG01 Gateway South Phase 1
- NTTG02 Gateway Central Phase 1
- NTTG03 Gateway West Phase 1
- NTTG05 Hemingway – Boardman
- NTTG06 Cascade Crossing

**CG**

- CG01 I-5 Corridor
- CG02 West McNary
- CG03 Big Eddy – Knight
- CG04 Little Goose Area Reinforcement

**BCH**

- BCH01 Nicola – Meridian
- BCH03 BC-US Intertie

**Alberta AESO**

- AESO03 1202L Conversion
- AESO04 Heartland
- AESO05 West HVDC
- AESO06 East HVDC
- AESO07 Fort McMurray - East Line
- AESO08 Fort McMurray - West Line

Legend

- 500 kV Single Circuit Line
- 345 kV Single Circuit Line
- 500 kV Double Circuit Line
- 345 kV Double Circuit Line
- DC Circuit (various voltage)
- Termination Substations
- Intermediate Substations

(1) Map does not reflect 230 or 240 kV lines that are included in the Foundational Transmission Project List.
(2) Internal reinforcements projects not shown for clarity.
(3) Lines shown are for illustrative purposes only and may not reflect final line routing.

Rocky Mountain Power
Exhibit No. 67 Page 1 of 1
Case No. PAC-E-10-07
Witness: Darrell T. Gerrard

88 nxa

**WIEC Data Request 3.6**

Provide a copy of all net power cost testimony filed by Mr. Widmer while employed by PacifiCorp.

**Response to WIEC Data Request 3.6**

Net power cost testimony in the Company's electronic archive as filed by Mr. Widmer extends back to November 1999. For testimony prior to November 1999, the Company suggests contacting state commissions.

Please refer to Attachment WIEC 3.6 -1 and Confidential Attachment WIEC 3.6 - 2. Confidential information is provided subject to the terms and conditions of the protective order in this proceeding. A summary of the testimony provided is included in Attachment WIEC 3.6 -1 entitled "_Summary of MTW NPC Testimony.xls".

**California**
01-03-026 – General Rate Case
A.05.11.022 – General Rate Case

**Idaho**
PAC-E-02-01 – General Rate Case
PAC-E-05-01 – General Rate Case
PAC-E-07-05 – General Rate Case

**Oregon**
UE 111 – General Rate Case
UE 116 – SB1149
UE 122 – Power Cost Adjustment Mechanism
UE 134 – Power Cost Model
UE 147 – General Rate Case
UE 170 – General Rate Case
UE 173 – Power Cost Adjustment Mechanism
UE 179 – General Rate Case
UE 191 – Transition Adjustment Mechanism
UM 1081 – Direct Access
UM 1193 – Hydro Deferral

**Utah**
99-035-10 – General Rate Case
01-035-01 – General Rate Case
03-2035-02 – General Rate Case
04-035-42 – General Rate Case
05-035-102 – Power Cost Adjustment Mechanism
06-035-21 – General Rate Case
07-035-93 – General Rate Case

**Washington**
UE-991832 – General Rate Case
UE-020417 – Excess Net Power Cost Deferral
UE-032065 – General Rate Case
UE-050684 / UE-050412 – General Rate Case
UE-061546 / UE-060817 – General Rate Case

**Wyoming**
20000-145-ER-99 – General Rate Case
20000-162-ER-00 – General Rate Case
20000-160-ER-00 / 20000-167-EP-01 – Power Cost Adjustment Mechanism
20000-184-ER-02 – General Rate Case
20000-198-ER-03 – General Rate Case
20000-205-ET-03 – Power Cost Adjustment Mechanism
20000-230-ER-05 – General Rate Case
20000-277-ER-07 – General Rate Case

| Jurisdiction | Document Date | Docket Number | Docket Name | Reference | Document Title |
|---|---|---|---|---|---|
| California | 11/29/2005 | A05-11-022 | General Rate Case | Exhibits PPL/500 to PPL/507 | Direct Testimony of Mark T. Widmer |
| California | 12/19/2001 | 01-03-026 | General Rate Case | Exhibits PPL/400 through PPL/402 | Direct Testimony of Mark T. Widmer |
| California | 8/7/2001 | 01-03-026 | General Rate Case | Exhibits PPL/400 through PPL/411 | Rebuttal Testimony of Mark T. Widmer |
| Idaho | 1/4/2002 | PAC-E-02-01 | General Rate Case | Testimony and Exhibits 4 to 7 | Direct Testimony of Mark T. Widmer |
| Idaho | 1/14/2005 | PAC-E-05-01 | GRC | Testimony and Exhibits 10 to 11 | Direct Testimony of Mark T. Widmer |
| Idaho | 6/8/2007 | PAC-E-07-05 | General Rate Case | DI -1, Exhibit 14, Exhibit 15 and Exhibit 16 | Direct Testimony of Mark T. Widmer |
| Idaho | 7/2/2007 | PAC-E-07-05 | General Rate Case | DI-Supp -1 and Exhibit 42 | Supplemental Testimony of Mark T. Widmer |
| Idaho | 10/25/2007 | PAC-E-07-05 | General Rate Case | DI-Reb -3 | Rebuttal Testimony of Mark T. Widmer |
| Oregon | 11/5/1999 | UE-111 | General Rate Case | Exhibits PPL/500 and PPL/501 | Direct Testimony of Mark T. Widmer |
| Oregon | 11/1/2000 | UE-116 | SB-1149 | Exhibits PPL/1000 and PPL/1001 | Direct Testimony of Mark T. Widmer |
| Oregon | 4/23/2001 | UE-116 | SB-1149 | Exhibits PPL/1002 to PPL/1012 | Rebuttal Testimony of Mark T. Widmer |
| Oregon | 5/23/2001 | UE-116 | SB-1149 | Exhibits PPL/1013 to PPL/1017 | Sur-Rebuttal Testimony of Mark T. Widmer |
| Oregon | 6/15/2001 | UE-116 | SB-1149 | Exhibits PPL/1018 to PPL/1020 | Direct Testimony (Phase 4) of Mark T. Widmer |
| Oregon | 8/17/2001 | UE-116 | SB-1149 | Exhibit PPL/1021 | Rebuttal Testimony (Phase 4) of Mark T. Widmer |
| Oregon | 3/23/2001 | UE-122 / 01-009 | Power Cost Adjustment Mechanism | Exhibits PPL/200 to PPL/202 | Direct Testimony of Mark T. Widmer |
| Oregon | 12/28/2001 | UE-134 / UM-1047 | Power Cost Model | Exhibits PPL/300 to PPL/304 | Direct Testimony of Mark T. Widmer |
| Oregon | 2/11/2003 | UE-134 / UM-1047 | Power Cost Model | Exhibits PPL/305 to PPL/308 | Supplemental Testimony of Mark T. Widmer |
| Oregon | 3/18/2003 | UE-147 | General Rate Case | Exhibits PPL/500 to PPL/502 | Direct Testimony of Mark T. Widmer |
| Oregon | 11/12/2004 | UE-170 | General Rate Case | Exhibits PPL/600 and PPL/603 | Direct Testimony of Mark T. Widmer |
| Oregon | 2/7/2005 | UE-170 | General Rate Case | Exhibits PPL/604 and PPL/606 | Supplemental Testimony of Mark T. Widmer |
| Oregon | 3/15/2005 | UE-170 | General Rate Case | Exhibits PPL/607 and PPL/608 | Additional Supplemental Testimony of Mark T. Widmer |
| Oregon | 6/8/2005 | UE-170 | General Rate Case | Exhibits PPL/609 and PPL/610 | Rebuttal Testimony of Mark T. Widmer |
| Oregon | 7/11/2005 | UE-170 | General Rate Case | Exhibit PPL/611 | Sur-Rebuttal Testimony of Mark T. Widmer |
| Oregon | 7/12/2005 | UE-170 | Transition Adjustment Mechanism | Staff/PacifiCorp and Staff/PacifiCorp 101 | Joint Testimony Supporting Third Stiulation |
| Oregon | 10/7/2005 | UE-170 | Transition Adjustment Mechanism | Exhibits PPL/612 and PPL/613 | Direct Testimony of Mark T. Widmer |
| Oregon | 4/15/2005 | UE-173 | Power Cost Adjustment Mechansim | Exhibits PPL/200, PPL/201, PPL/202, PPL/203 and PPL/204 | Direct Testimony of Mark T. Widmer |
| Oregon | 9/9/2005 | UE-173 | Power Cost Adjustment Mechansim | Exhibit PPL/205 | Rebuttal Testimony of Mark T. Widmer |
| Oregon | 10/31/2005 | UE-173 | Power Cost Adjustment Mechansim | Exhibit PPL/206 | Supplemental Testimony of Mark T. Widmer |
| Oregon | 2/23/2006 | UE-179 | General Rate Case | Exhibits PPL/500 to PPL/502 | Direct Testimony of Mark T. Widmer |
| Oregon | 4/10/2006 | UE-179 | General Rate Case | Exhibit PPL/503 and PPL/505 | Supplemental Testimony of Mark T. Widmer |
| Oregon | 7/20/2006 | UE-179 | General Rate Case | Exhibits PPL/506 to PPL/508 | Rebuttal Testimony of Mark T. Widmer |
| Oregon | 4/2/2007 | UE-191 | Transition Adjustment Mechanism | Exhibits PPL/200, PPL/201, PPL/202 and PPL/203 | Direct Testimony of Mark T. Widmer |
| Oregon | 7/25/2007 | UE-191 | Transition Adjustment Mechanism | Exhibits PPL/204, PPL/205 and PPL/206 | Rebuttal Testimony of Mark T. Widmer |
| Oregon | 8/20/2007 | UE-191 | Transition Adjustment Mechanism | Exhibits PPL/204 Errata | Corrected Filing - Rebuttal Testimony of Mark T. Widmer |
| Oregon | 6/24/2004 | UM-1081 | Direct Access | Exhibits PPL/300 through PPL/302 | Rebuttal Testimony of Mark T. Widmer |
| Oregon | 5/13/2005 | UM-1193 | Hydro Deferral | Exhibits PPL/100 through PPL/103 | Direct Testimony of Mark T. Widmer |
| Oregon | 5/20/2005 | UM-1193 | Hydro Deferral | Exhibits PPL/100 through PPL/103 | Corrected Direct Testimony of Mark T. Widmer |
| Utah | 9/20/1999 | 99-035-10 | General Rate Case | MTW -T and Exhibit MTW -1 | Direct Testimony of Mark T. Widmer |
| Utah | 3/12/2000 | 99-035-10 | General Rate Case | MTW -TR and Exhibits MTW -1R to MTW -9R | Rebuttal Testimony of Mark T. Widmer |
| Utah | 3/27/2000 | 99-035-10 | General Rate Case | MTW -TSR | Sur-Rebuttal Testimony of Mark T. Widmer |
| Utah | 1/12/2001 | 01-035-01 | General Rate Case | MTW -T and Exhibits MTW -1 and MTW -2 | Direct Testimony of Mark T. Widmer |
| Utah | 2/12/2001 | 01-035-01 | General Rate Case | MTW _TS | Supplemental Testimony of Mark T. Widmer |
| Utah | 7/16/2001 | 01-035-01 | General Rate Case | MTW _TR and Exhibits MTW -1R to MTW -17R | Rebuttal Testimony of Mark T. Widmer |
| Utah | 7/31/2003 | 03-2035-01 | General Rate Case | MTW -T and Exhibits MTW -1 and MTW -2 | Direct Testimony of Mark T. Widmer |
| Utah | 10/15/2003 | 03-2035-01 | General Rate Case | MTW _TS and Exhibit MTW -1S | Supplemental Testimony of Mark T. Widmer |
| Utah | 8/4/2004 | 04-035-42 | General Rate Case | MTW -T and Exhibits MTW -1 and MTW -2 | Direct Testimony of Mark T. Widmer |
| Utah | 1/14/2005 | 04-035-42 | General Rate Case | MTW _TR and Exhibits MTW -1R to MTW -8R | Rebuttal Testimony of Mark T. Widmer |
| Utah | 11/23/2005 | 05-035-102 | Power Cost Adjustment Mechanism | MTW -T and Exhibits MTW -1 to MTW -5 | Direct Testimony of Mark T. Widmer |
| Utah | 3/7/2006 | 06-035-21 | General Rate Case | Testimony and Exhibits MTW -1 to MTW -2 | Direct Testimony of Mark T. Widmer |
| Utah | 12/17/2007 | 07-035-93 | General Rate Case | Testimony and Exhibits MTW -1 to MTW -3 | Direct Testimony of Mark T. Widmer |
| Washington | 11/24/1999 | UE-991832 | General Rate Case | MTW -T and Exhibit MTW -1 | Direct Testimony of Mark T. Widmer |

| | | | | | |
|---|---|---|---|---|---|
| Washington | 10/18/2002 | UE-020417 | Excess Net Power Cost Deferral | MTW -T and Exhibits MTW -1 and MTW -3 | Direct Testimony of Mark T. Widmer |
| Washington | 10/18/2002 | UE-020417 | Excess Net Power Cost Deferral | Confidential Exhibits MTW -2 and MTW -4 | Direct Testimony of Mark T. Widmer - Confidential Exhibits |
| Washington | 2/26/2003 | UE-020417 | Excess Net Power Cost Deferral | MTW -R | Rebuttal Testimony of Mark T. Widmer |
| Washington | 12/16/2003 | UE-032065 | General Rate Case | MTW -1 to MTW -6 | Direct Testimony of Mark T. Widmer |
| Washington | 7/26/2004 | UE-032065 | General Rate Case | MTW -7 to MTW -11 | Rebuttal Testimony of Mark T. Widmer |
| Washington | 8/27/2004 | UE-032065 | General Rate Case | Panel -1 to Panel -7 | Joint Testimony Supporting Settlement Agreement |
| Washington | 9/3/2004 | UE-032065 | General Rate Case | MTW -1, MTW -5, MTW -7, MTW -9 and MTW -10 | Corrected Direct and Rebuttal Testimony of Mark T. Widmer |
| Washington | 5/10/2005 | UE-050384 / UE-050412 | General Rate Case | Exhibits MTW -1 to MTW -7 | Direct Testimony of Mark T. Widmer |
| Washington | 12/7/2005 | UE-050384 / UE-050412 | General Rate Case | Exhibits MTW -8 to MTW -10 | Rebuttal Testimony of Mark T. Widmer |
| Washington | 12/30/2005 | UE-050384 / UE-050412 | General Rate Case | Exhibits MTW -8 to MTW -9 | Corrected Rebuttal Testimony of Mark T. Widmer |
| Washington | 10/3/2006 | UE-061546 / UE-060817 | General Rate Case | Exhibits MTW -1 to MTW -7 | Direct Testimony of Mark T. Widmer |
| Washington | 1/19/2007 | UE-061546 / UE-060817 | General Rate Case | Exhibit Joint 1T | Joint Testimony Supporting Settlement Stipulation |
| Washington | 3/5/2007 | UE-061546 / UE-060817 | General Rate Case | Exhibits MTW -8 to MTW -11 | Rebuttal Testimony of Mark T. Widmer |
| Washington | 3/20/2007 | UE-061546 / UE-060817 | General Rate Case | Exhibits MTW -1 and MTW -6 | Corrected Direct Testimony of Mark T. Widmer |
| Wyoming | 7/26/1999 | 20000-145-ER-99 | General Rate Case | Exhibits PPL -5 and PPL -5.1 | Direct Testimony of Mark T. Widmer |
| Wyoming | 1/10/2000 | 20000-145-ER-99 | General Rate Case | Exhibit PPL -12 | Rebuttal Testimony of Mark T. Widmer |
| Wyoming | 12/18/2000 | 20000-162-ER-00 | General Rate Case | Exhibits MTW -10, MTW -10.1 and MTW -10.2 | Direct Testimony of Mark T. Widmer |
| Wyoming | 4/30/2001 | 20000-160-ER-00 / 20000-167-EP-01 | Power Cost Adjustment Mechansim | Exhibits MTW -3, MTW -3.1, MTW -3.2 and MTW -3.3 | Direct Testimony of Mark T. Widmer |
| Wyoming | 11/5/2001 | 20000-160-ER-00 / 20000-167-EP-01 | Power Cost Adjustment Mechansim | Rebuttal | Rebuttal Testimony of Mark T. Widmer |
| Wyoming | 5/6/2002 | 20000-184-ER-02 | General Rate Case | MTW -T and Exhibits MTW -1 to MRW -9 | Direct Testimony of Mark T. Widmer |
| Wyoming | 12/18/2002 | 20000-184-ER-02 | General Rate Case | MTW -TR and Exhibits MTW -1R to MTW -7R | Rebuttal Testimony of Mark T. Widmer |
| Wyoming | 12/24/2002 | 20000-184-ER-02 | General Rate Case | MTW -TR and Exhibit MTW -3R | Corrected Rebuttal Testimony of Mark T. Widmer |
| Wyoming | 1/10/2003 | 20000-184-ER-02 | General Rate Case | MTW -TR and Exhibits MTW -2R and MTW -4R | Second Corrected Rebuttal Testimony of Mark T. Widmer |
| Wyoming | 5/27/2003 | 20000-198-ER-03 | General Rate Case | MTW -T and Exhibits MTW -1 to MTW -2 | Direct Testimony of Mark T. Widmer |
| Wyoming | 12/23/2003 | 20000-198-ER-03 | General Rate Case | MTW -TR and Exhibits MTW -1R to MTW -5R | Rebuttal Testimony of Mark T. Widmer |
| Wyoming | 9/26/2003 | 20000-205-ET-03 | Power Cost Adjustment Mechansim | MTW -T and Exhibits MTW -1 to MTW -2 | Direct Testimony of Mark T. Widmer |
| Wyoming | 2/23/2004 | 20000-205-ET-03 | Power Cost Adjustment Mechansim | MTW -TR and Exhibits MTW -1R to MTW -4R | Rebuttal Testimony of Mark T. Widmer |
| Wyoming | 10/14/2005 | 20000-230-ER-05 | General Rate Case | Testimony and Exhibits MTW -1 to MTW -7 | Direct Testimony of Mark T. Widmer |
| Wyoming | 6/29/2007 | 20000-277-ER-07 | General Rate Case | Testimony and Exhibits MTW -1 to MTW -3 | Direct Testimony of Mark T. Widmer |

**BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING**

| | | |
|---|---|---|
| IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER, FORMERLY KNOWN AS PACIFICORP, TO IMPLEMENT AVOIDED COST METHODOLOGIES FOR PROJECTS OVER ONE MEGAWATT PURSUANT TO THE TERMS OF COMMITMENT WY 4. | ) ) ) ) ) ) ) | DOCKET NO. 20000-250-EA-06 (RECORD NO. 10636) |

## SUBMISSION OF STIPULATION

Rocky Mountain Power ("RMP" or the "Company") hereby submits to the Public Service Commission of Wyoming ("Commission") a Stipulation and Agreement covering all outstanding issues in this Docket entered into by RMP, the Office of Consumer Advocate (OCA) and the Wyoming Industrial Energy Consumers (WIEC). The Stipulation is attached hereto as "Attachment A" and provides generally for RMP to modify certain terms and conditions in its tariff Schedule 37, Avoided Cost Purchases from Qualifying Facilities.

The OCA and WIEC have authorized RMP to represent to the Commission that they join with RMP in requesting approval of the Stipulation. Mountain Wind Power, LLC, (Mt. Wind) and PPM Energy, Inc. (PPM) are also parties of record in this Docket who have elected not to sign the Stipulation, but have also agreed not to object to it.

RMP requests that the Commission approve the Stipulation. The Commission has approved a procedural schedule in this Docket that has public hearings scheduled to commence in Cheyenne beginning January 10, 2007. The Company believes that as a result of the Stipulation, a complete record in this Docket can be accomplished in one day of public hearings. The Company will make itself available to explain and support the Stipulation as well as



Exh 91

proposed tariff Schedule 37 if the Commission should desire to commence a public hearing prior to January 10, 2007.

WHEREFORE, RMP requests that the Commission approve the Stipulation providing for the filing of a tariff for Avoided Cost Purchases from Qualifying Facilities, Schedule 37, subject to the conditions of the Stipulation.

DATED this 3rd day of November, 2006.

David M. Mosier
WY Regulatory Affairs Manager
320 West 25th Street, Suite 301
Cheyenne, WY 82001
Ph. (307) 632-2677

**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of Submission of Stipulation in the above captioned matter was served by Electronic Mail to the following, pursuant to the Wyoming Rules of Civil Procedure this 3rd day of November 2006.

| | |
|---|---|
| Chris Petrie, Wyoming Office of Consumer Advocate, | cpetri@state.wy.us |
| Robert Pomeroy, Wyoming Industrial Energy Consumers, | rpomeroy@hollandhart.com |
| Dale Cottam, PPM Energy, Inc. | dcottam@hirstapplegate.com |
| Roger Swenson, Mountain Wind Power, LLC, | roger.swenson@prodigy.net |
| Roger Fransen, Hickey & Evans, LLP, | roger@hickeyevans.com |
| Dean S. Brockbank, Rocky Mountain Power | dean.brockbank@pacificorp.com |

# ATTACHMENT A

**BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING**

| | | |
|---|---|---|
| IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER, FORMERLY KNOWN AS PACIFICORP, TO IMPLEMENT AVOIDED COST METHODOLOGIES FOR PROJECTS OVER ONE MEGAWATT PURSUANT TO THE TERMS OF COMMITMENT WY 4. | ) ) ) ) ) ) ) | DOCKET NO. 20000-250-EA-06 (RECORD NO. 10636) |

## STIPULATION AND SETTLEMENT AGREEMENT

On June 19, 2006, Rocky Mountain Power ("RMP" or "PacifiCorp") filed an application for an order authorizing RMP to implement avoided cost methodologies for projects over one Megawatt pursuant to the terms of Commitment WY 4 approved by the Wyoming Public Service Commission ("Commission") in Docket No. 20000-EA-05-226. Four other parties have intervened in the docket including the Wyoming Office of Consumer Advocate ("OCA"), the Wyoming Industrial Energy Consumers ("WIEC"), Mountain Wind Power LLC ("Mountain Wind"), and PPM Energy, Inc. ("PPM"). All of the parties have met and conferred on the issues raised by the application. Following these meetings, RMP, the OCA, and WIEC (collectively the "Settling Parties") have reached a Stipulation and Settlement Agreement ("Agreement") as set forth below. The Settling Parties respectfully request that this Agreement be approved by the Commission. The Settling Parties are further authorized to state that Mountain Wind and PPM do not object to the relief requested by the Settling Parties.

The Settling Parties agree as follows:

1. The Commission should grant all of the relief requested by RMP in the Application and the associated testimony of Mr. Mark Widmer, except as specifically

provided in this Agreement. A copy of Mr. Widmer's testimony is attached hereto and made a part hereof as Exhibit 1. The Settling Parties agree that RMP's proposed methodology to calculate avoided cost rates for qualifying facilities should be adopted by the Commission. Further, the Settling Parties agree that RMP's proposal with respect to Green Tags should be adopted by the Commission.

2. Within 30 days of the approval of this Agreement, RMP shall file to amend the applicability of Schedule 37 (Avoided Cost Purchase From Qualifying Facilities). The Applicability Section of Schedule 37 shall be amended to read:

> Applicable to the purchase by PacifiCorp of all non-firm energy produced by Qualifying Facilities over which the Commission has jurisdiction, prior to commercial operation and subject to a power sales contract. After commercial operation is achieved, Qualifying Facilities will receive firm power prices. For firm power purchases from all Qualifying Facilities over which the Commission has jurisdiction with a historic or projected annual capacity factor of seventy percent or below up to 1 MW design capacity or up to a maximum of 10 MW of average monthly capacity and associated energy when the historic or projected annual capacity factor is greater than seventy percent.

A redlined version of Schedule 37 implementing the terms and conditions of this Agreement is attached hereto and made apart hereof as Exhibit 2.

3. With respect to the issue of queuing, when PacifiCorp receives a request for indicative pricing from a Qualifying Facility, PacifiCorp shall provide indicative

pricing within thirty days. Consistent with RMP's proposal in this docket, such pricing shall be generated using two model runs that both reflect all PacifiCorp generation resources in existence and all power purchase agreements in effect at the time the indicative pricing is provided. If, after the date indicative pricing is provided and before the qualifying facility requesting such pricing executes a power purchase agreement with PacifiCorp, a new generation resource comes on-line, an existing resource goes off-line, a new power purchase agreement is executed, or an existing power purchase agreement expires, PacifiCorp shall notify the qualifying facilities of the changed circumstances and shall indicate that the indicative pricing previously provided is no longer valid. In that instance, the qualifying facility may request new indicative pricing.

4. The prefiled Direct Testimony of Mr. Mark Widmer should be admitted by the Commission as evidence in this docket without cross-examination from any party.

5. This Agreement reflects the compromise and settlement of all issues raised or that could have been raised in this docket.

6. This Agreement is to be treated as a complete package, not as a collection of separate agreements on discrete issues.

7. This Agreement shall not become effective until the issuance of a final Commission Order approving the Agreement, which Order does not contain any modifications to the terms and conditions of this Agreement that are unacceptable to any of the Settling Parties.

8. In the event that the Agreement is not approved, or is approved with conditions that are unacceptable to any Party, the negotiation or discussions undertaken

in conjunction with this Agreement shall not be admissible into evidence in this or any other proceeding.

9. Approval by the Commission of this Agreement shall constitute a determination that the Agreement represents a just, equitable, and reasonable resolution of all issues that were or could have been contested among the parties in this proceeding. The Settling Parties state that reaching agreement in the docket by means of a negotiated settlement is in the public interest and that the results of the compromises and settlements reflected in this Agreement are just, reasonable, and in the public interest.

10. All of the Settling Parties have had the opportunity to participate in the drafting of this Agreement. There shall be no legal presumption that any specific party was the drafter of this Agreement.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

11. This Agreement may be executed in counterparts, all of which when taken together shall constitute the entire Agreement with respect to the issues addressed by this agreement.

Dated this 3RD day of November, 2006.

PACIFICORP

_____
By: Mark Klein
Its: Vice President, PacifiCorp Energy
Date:_____

WYOMING OFFICE OF CONSUMER ADVOCATE

_____
By:_____
Its:_____
Date:_____

WYOMING INDUSTRIAL ENERGY CONSUMERS

_____
By:_____
Its:_____
Date:_____

# EXHIBIT 1

**Q. Please state your name, business address and present position with PacifiCorp Energy (the company).**

A. My name is Mark Widmer, my business address is 825 N.E. Multnomah, Suite 800, Portland, Oregon 97232, and my title is Director, Net Power Costs.

**Qualifications**

**Q. Briefly describe your education and business experience.**

A. I received an undergraduate degree in Business Administration from Oregon State University. I have worked for PacifiCorp since 1980 and have held various positions in the power supply and regulatory areas. I was promoted to my present position in September 2004.

**Q. Please describe your current duties.**

A. I am responsible for the coordination and preparation of net power cost and related analyses used in retail price filings. In addition, I represent the company on power resource and other various issues with intervener and regulatory groups associated with the six state regulatory commissions to whose jurisdiction we are subject.

**Summary of Testimony**

**Q. Will you please summarize your testimony?**

A. Yes. I sponsor testimony describing the company's Wyoming Commitment 4, the current process that has been used to calculate avoided cost rates for Qualifying Facility (QF) projects larger than one megawatt and describe the company's new proposed methodology. In addition, I will review the queuing process and the issues surrounding which QF project should receive avoided cost prices first and

the company's position on the renewable energy attribute ("Green Tag") ownership.

**Wyoming Commitment 4**

**Q. Does this filing fulfill Wyoming Commitment 4 of the Mid America Energy Holding Company (MEHC) acquisition of PacifiCorp?**

A. Yes. MEHC and PacifiCorp agreed to initiate a proceeding in Wyoming within ninety days of the close of the transaction for Commission review and determination of appropriate avoided cost methodologies for QF projects over one megawatt in Wyoming. The ninety day period requires the company to make the filing on or before June 19, 2006.

**Q. Have meetings been held with various interested parties on this issue prior to this filing?**

A. Yes. The company has met several times with representatives from the Wyoming Industrial Energy Consumers (WIEC), ExxonMobil, Simplot Phosphates, the Wyoming Office of Consumer Advocates (OCA) and the Mountain Wind QF project to discuss the avoided cost methodology for projects larger than one megawatt. As a result of those meetings PacifiCorp has developed a new proposed methodology, which is discussed in my testimony.

**Current Method**

**Q. Please describe the method for calculating avoided cost prices for projects that do not qualify for published rates.**

A. QF projects larger than one megawatt do not qualify for the Schedule 37 published avoided cost rates and therefore, are developed through bilateral

negotiations between the company and a QF. More recently in negotiations with QFs over one megawatt, the parties started with the Schedule 37 published avoided cost rates for projects below one megawatt and those prices were adjusted for the specific capabilities of the QF project seeking a QF contract. These adjustments, as allowed by PURPA for QF specific capabilities, can include the type of power being delivered to the utility by the QF project, the QF's availability during daily and seasonal peak periods, the ability of the utility to dispatch the QF, the reliability of the QF, the type of generation technology and fuel source and location.

**Q. For clarity please explain the process for developing the schedule 37 avoided cost prices.**

A. Schedule 37 avoided cost rates are calculated for two periods, a period of resource sufficiency and a period of resource deficiency. During periods of resource sufficiency, avoided costs are based on the displacement of purchased and existing thermal resources and incremental wholesale sales as modeled by the company's production dispatch model. Avoided costs for this period are calculated with two production dispatch model studies. The only difference between the two studies is an assumed zero cost, 50 average megawatt increase in monthly system resources. The 50 average megawatt resource serves as a proxy for QF generation. The resulting difference in the two studies represents the company's avoided costs for the resource sufficiency period. For the resource deficiency period avoided costs are based on a proxy resource. Current published rates use a combined cycle combustion turbine as the proxy resource.

**Q. Has the negotiated process for larger projects worked satisfactorily from the Company's perspective?**

A. Yes. However, I believe the QF projects have at times been somewhat frustrated by a perceived lack of transparency related to project-specific adjustments because there hasn't been an approved method for calculating avoided costs for projects greater than one megawatt in Wyoming.

**Q. Are there other reasons to consider an alternative method at this time?**

A. Yes. While the process of starting with standard published prices and making project specific adjustments has worked adequately, the company has the ability to more accurately calculate avoided cost rates. Using an hourly production dispatch model, the company can dynamically measure the avoided cost impact a QF has on the company's system more accurately than can be accomplished with simple spread sheet calculations. The increased accuracy is important for larger projects because they have a more significant financial impact on the company and its customers.

**Proposed Method**

**Q. Please explain the new proposed method.**

A. Avoided costs would be calculated in the same manner as they have been calculated for Schedule 37 published rates described above with some notable exceptions. First, avoided cost rates would be calculated for the entire 20 year period with the GRID production dispatch model, thereby eliminating the use of a proxy resource for the deficiency period. Second, the proxy resource used for deficiency period avoided costs will be replaced with growth stations in the

production dispatch model that represent market purchases. Third, the 50 average megawatt QF resource used in the production dispatch model runs to simulate QF generation will be replaced with the operating characteristics of the QF requesting a contract. These changes will allow the company to dynamically and more accurately capture the system avoided cost impact for all types of QF resources.

**Q. Will the production dispatch studies include resources that are on the drawing board but have not been firmed up?**

A. No. The production dispatch studies will only include resources that are firm at the time of the study, not potential resources.

**Q. Do intermittent renewable resources require an additional adjustment to the GRID production dispatch modeled avoided costs?**

A. Yes. The intermittent nature of a renewable resource causes the company to incur additional costs associated with the integration of the renewable resource that other resources do not cause the company to incur. These integration costs represent the intra-hour fuel and operating reserve requirement cost of having intermittent resources on our system. These costs are not captured by the company's GRID model and therefore must be deducted from the GRID calculated avoided cost rates.

**Q. Is annual avoided cost pricing appropriate for intermittent renewable resources?**

A. No. The intermittent nature and the shape of the energy provided by intermittent resources would very likely result in an overpayment to intermittent QF projects if annual pricing is used. To avoid overpayment, avoided cost rates for intermittent

resources should be developed with the GRID model on a monthly basis split between heavy-load hours and light-load hours.

**Q. Have avoided cost rates based on the proposed methodology been provided to and accepted by any Wyoming QF projects at this point in time?**

A. Yes. Avoided cost prices that were provided to the Mountain Wind project developers have been accepted and are expected to result in an executed contract between the parties in the near future. The fact that a large QF has accepted and agreed to avoided costs developed under the proposed methodology demonstrates the reasonableness of the company's proposed method.

**Q. Will the Mountain Wind contract eliminate all contractual issues between the company and Mountain Wind?**

A. No. The one contractual issue remaining is the ownership of the Green Tags, which will be addressed in this docket and will be discussed later in my testimony.

**Avoided Cost Queuing**

**Q. Please explain why queuing is an issue in the determination of avoided cost pricing in Wyoming?**

A. As each QF resources is added to the company's existing system, the system becomes more transmission constrained, which causes more low cost thermal generation to be displaced because not all resources can get to market. In this situation, the QF that receives prices first will get higher prices than the QF that receives prices second and so forth, because each additional QF increases the transmission constraints. As such, a Commission approved queuing methodology

needs to be established in order to prevent any confusion regarding which QF project receives prices first, when multiple projects are requesting contracts.

**Q. What are some of the queuing alternatives that the Commission could consider?**

A. Some of the queuing methods the Commission could evaluate include; a first-in method where the QF that requests prices first gets the first prices, a first to contract method where the first QF that is ready to sign a contract gets the first prices, or a method where milestones are set for each QF and the first to reach a particular milestone gets the first prices.

**Q. Does the company have a preference?**

A. No. This is an issue between respective QF projects because it will determine the order in which projects receive prices from PacifiCorp. The company is raising the issue for the Commission and QFs so a transparent and objective method can be adopted.

**Green Tags**

**Q. What are Renewable Attributes (Green Tags)?**

A. A "Green Tag" has been defined to represent the separable bundle of non-energy attributes (environmental, economic and social) associated with the generation of renewable generation. Green Tags are also called green tickets, renewable certificates, and renewable electricity certificates or credits. Green Tags are generally sold as a bundled product including the delivered energy and its renewable attributes however; they can also be sold separate from their associated energy in wholesale markets. The determination of the ownership or rights of the

Green Tags is expected to be established on a state by state basis because PURPA in its initial statutes did not contemplate Green Tags as a component of the avoided costs. Green Tags are also used as a tool to measure and track renewable generation for states that are required to demonstrate compliance with state mandates and other energy programs such as Renewable Portfolio Standards ("RPS").

**Q. What is FERC's view on Green Tags?**

A. FERC held in an Order in late 2003 that Green Tags were a recent development not addressed in PURPA and that determination of the control and ownership of a QF's Green Tags should be made by the individual state. See American Ref-Fuel Co., et.al. 105 FERC ¶ 61,004 (Oct. 1, 2003).

**Q. Has the Commission made any determination of the control and ownership of a QF's Green Tags?**

A. Not to my knowledge.

**Q. How are Green Tags associated with renewable QF projects?**

A. Green Tags associated with the energy generated are an inherent part of a renewable QF. If a resource project is developed and deemed to be a renewable resource, it has the attributes that allow it to declare Green Tags associated with the project. If the renewable project then certifies with FERC as a QF, because it meets the PURPA standards because it is a renewable resource, then the energy from the QF project and the Green Tags are a part of what the company is receiving from the QF resource. Those Green Tags may or may not have value depending on the State's definition of what constitutes a valid Green Tag.

**Q. What is the company's position on Green Tag ownership?**

A. The company believes that its ratepayers are paying for the delivered capacity and associated energy from all PURPA contracts, renewable or not and therefore are the ultimate end-use customer of the Green Tags from renewable QF projects. Therefore, in the company's view, the Green Tags are the property of the ratepayers through the vehicle of the power purchase agreement between the QF and the company and the QF facility owner should not have the right to sell the Green Tags during the term of the power purchase agreement. In the event the QF contract ends or is terminated, the Green Tags revert to the QF project until the QF developer sells or transfers the Green Tags to another purchaser. Phrased differently, for any QF project over one megawatt in Wyoming, the company would retain the Green Tags for the benefit of the company's ratepayers without any additional payment when it buys power from the QF resource.

**Q. Does this conclude your direct testimony?**

A. Yes.

11. This Agreement may be executed in counterparts, all of which when taken together shall constitute the entire Agreement with respect to the issues addressed by this agreement.

Dated this 3RD day of November, 2006.

PACIFICORP

Mark Klein

By: Mark Klein
Its: Vice President, PacifiCorp Energy
Date: November 3, 2006

WYOMING OFFICE OF CONSUMER ADVOCATE

By:_____
Its:_____
Date:_____

WYOMING INDUSTRIAL ENERGY CONSUMERS

By:_____
Its:_____
Date:_____

11. This Agreement may be executed in counterparts, all of which when taken together shall constitute the entire Agreement with respect to the issues addressed by this agreement.

Dated this 3RD day of November, 2006.

PACIFICORP

By: Mark Klein
Its: Vice President, PacifiCorp Energy
Date:

WYOMING OFFICE OF CONSUMER ADVOCATE

By: Bryan J. Freeman
Its: Administrator
Date: November 3, 2006

WYOMING INDUSTRIAL ENERGY CONSUMERS

By: Walter F. Eggers, III
Its: Attorney
Date: November 3, 2006

# EXHIBIT 2

# ROCKY MOUNTAIN POWER

Original Sheet No. 37-1

P.S.C. Wyoming No. 9

**Avoided Cost Purchases from Qualifying Facilities**
**Schedule 37**

**Available**

To owners of Qualifying Facilities in all territory served by the Company in the State of Wyoming.

**Applicable**

~~For~~Applicable to the purchase by PacifiCorp of all non-firm energy ~~sales, to all Wyoming non-utility owners or operators of~~produced by Qualifying Facilities over which the Commission has jurisdiction, prior to commercial operation and subject to a power sales contract. After commercial operation is achieved, Qualifying Facilities will receive firm power prices.

For firm power ~~sales, to~~purchases from all ~~Wyoming owners of Qualifying Facilities with a design capacity of 1,000 kW or less~~Qualifying Facilities over which the Commission has jurisdiction with a historic or projected annual capacity factor of seventy percent or below up to 1 MW design capacity or up to a maximum of 10 MW of average monthly capacity and associated energy when the historic or projected annual capacity factor is greater than seventy percent. Owners of these Qualifying Facilities may be required to enter into a written power sales contract with the Company.

**Rates for Purchases**

**Non-firm Energy**

The prices shown below are subject to change from time to time to reflect changes in the Company's determination of avoided costs. The prices applicable to a ~~Wyoming~~ Qualifying Facility over which the Commission has jurisdiction shall be those in effect at the time the power is delivered.

| Deliveries During Calendar Year | Non-Firm Energy Prices Winter ¢/kWh | Summer ¢/kWh |
|---|---|---|
| 2005 | 4.00 | 4.74 |
| 2006 | 4.98 | 4.86 |
| 2007 | 4.34 | 4.09 |

Issued by
D. Douglas Larson, Vice President, Regulation

Issued: May 15, 2006

Effective: With service rendered on and after July 1, 2006

Dkt. No. 20000-230-ER-05

WY_ 37-1.E

| | | |
|---|---|---|
| 2008 | 4.10 | 4.41 |
| 2009 | 4.07 | 4.23 |

*(continued)*

**Firm Power Time of Delivery**

The prices shown below are subject to change from time to time to reflect changes in the Company's determination of Wyoming avoided costs. The prices applicable to a ~~Wyoming~~ Qualifying Facility over which the Commission has jurisdiction shall be those in effect at the time a written contract acceptable to the Company is signed on behalf of the Qualifying Facility and received by the Company at 825 N. E. Multnomah Street, Portland, Oregon, 97232, or such other address as the Company shall designate. These prices will only be applied to ~~Wyoming~~ Qualifying Facility resources over which the Commission has jurisdiction that enter into contracts with the Company until 10 megawatts of system resources are acquired.

| Deliveries During Calendar Year | Firm Capacity Price $/kW-mo | Firm Energy Prices Winter ¢/kWh | Summer ¢/kWh |
|---|---|---|---|
| 2005 | 1.51 | 4.00 | 4.74 |
| 2006 | 1.54 | 4.98 | 4.86 |
| 2007 | 1.57 | 4.34 | 4.09 |
| 2008 | 1.61 | 4.10 | 4.41 |
| 2009 | 1.64 | 4.07 | 4.23 |
| 2010 | 6.69 | 4.30 | 4.30 |
| 2011 | 6.89 | 4.57 | 4.57 |
| 2012 | 7.09 | 5.11 | 5.11 |
| 2013 | 7.30 | 5.34 | 5.34 |
| 2014 | 7.51 | 5.37 | 5.37 |
| 2015 | 7.73 | 5.45 | 5.45 |
| 2016 | 7.96 | 5.59 | 5.59 |

*(continued)*

# ROCKY MOUNTAIN POWER

Original Sheet No. 37-2

P.S.C. Wyoming No. 9

**Avoided Cost Purchases from Qualifying Facilities**
**Schedule 37**

Issued by
D. Douglas Larson, Vice President, Regulation

Issued: May 15, 2006

Effective: With service rendered on and after July 1, 2006

Dkt. No. 20000-230-ER-05

WY_ 37-2.E

**Rates for Purchases** *(continued)*

| Deliveries During Calendar Year | Firm Capacity Price $/kW-mo | Firm Energy Prices Winter ¢/kWh | Summer ¢/kWh |
|---|---|---|---|
| 2017 | 8.19 | 5.73 | 5.73 |
| 2018 | 8.43 | 5.86 | 5.86 |
| 2019 | 8.68 | 6.02 | 6.02 |
| 2020 | 8.94 | 6.17 | 6.17 |
| 2021 | 9.29 | 6.33 | 6.33 |
| 2022 | 9.66 | 6.49 | 6.49 |
| 2023 | 10.04 | 6.66 | 6.66 |
| 2024 | 10.43 | 6.82 | 6.82 |
| 2025 | 10.84 | 7.00 | 7.00 |
| 2026 | 11.27 | 7.19 | 7.19 |
| 2027 | 11.71 | 7.37 | 7.37 |
| 2028 | 12.18 | 7.56 | 7.56 |

Green Tags
The Company retains Green Tags for the benefit of customers without any additional payment when it buys power from a QF resource. In the event a qualifying facility contract ends or is terminated, the Green Tags revert to the qualifying facility project until the developer sells or transfers the Green Tags to another purchaser.

*(continued)*

# ROCKY MOUNTAIN POWER

Original Sheet No. 37-4

P.S.C. Wyoming No. 9

**Avoided Cost Purchases from Qualifying Facilities Schedule 37**

## Definitions

**Cogeneration Facility**
A facility which produces electric energy together with steam or other forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes through the sequential use of energy.

**Qualifying Facilities**
Qualifying cogeneration facilities or qualifying small power production facilities within the meaning of section 201 and 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 U.S.C. 796 and 824a-3.

**Small Power Production Facility**
A facility which produces electric energy using as a primary energy source biomass, waste, renewable resources or any combination thereof and has a power production capacity which, together with other facilities located at the same site, is not greater than 80 megawatts.

**Winter Season**
The months of November through April.

**Summer Season**
The months of May through October.

**Monthly Payments**
The Monthly Payment shall be the sum of the avoided cost energy payment and the avoided cost capacity payment if applicable.

**Rules**
Service under this Schedule is subject to the General Rules contained in the tariff of which this Schedule is a part, and to those prescribed by the Wyoming Public Service Commission.

---

Issued by
D. Douglas Larson, Vice President, Regulation

Issued: May 15, 2006

Effective: With service rendered on and after July 1, 2006

Dkt. No. 20000-230-ER-05

WY_ 37-4.E

ROCKY MOUNTAIN POWER
STATE OF IDAHO
NORMALIZED BILLING DETERMINANTS
12 MONTHS ENDING DECEMBER 2010

| | 2009 Units | 2010 Units | Present Price | 2009 Present Revenue Dollars | 2010 Present Revenue Dollars | Proposed Price | Proposed Revenue Dollars |
|---|---|---|---|---|---|---|---|
| **SCHEDULE NO. 35 - General Service - Optional TOD** | | | | | | | |
| **Industrial** | | | | | | | |
| Customer Charge Secondary | 12 | 12 | $54.75 | $657 | $657 | $62.00 | $744 |
| Customer Charge Primary | 0 | 0 | $134.80 | $0 | $0 | $153.00 | $0 |
| Total Customer Charges | 12 | 12 | | | | | |
| All On-Peak kW | 653 | 705 | $13.48 | $8,802 | $9,503 | $15.27 | $10,765 |
| All kWh | 1,234,160 | 1,332,552 | 4.0167 ¢ | $49,573 | $53,525 | 4.5504 ¢ | $60,636 |
| Seasonal Service Charge (Secondary) | 0 | 0 | $656.72 | $0 | $0 | $744.00 | $0 |
| Seasonal Service Charge (Primary) | 0 | 0 | $1,617.81 | $0 | $0 | $1,836.00 | $0 |
| Voltage Discount | 0 | 0 | ($0.69) | $0 | $0 | ($0.78) | $0 |
| Base Subtotal | 1,234,160 | 1,332,552 | | $59,032 | $63,685 | | $72,145 |
| Unbilled | 54,012 | 0 | | $1,817 | $0 | | $0 |
| Base Total | 1,288,172 | 1,332,552 | | $60,849 | $63,685 | | $72,145 |
| **SCHEDULE 400 - Monsanto** | | | | | | | |
| **Firm** | | | | | | | |
| Customer Charges | 12 | 12 | $1,227.00 | $14,724 | $14,724 | $1,450.00 | $17,400 |
| Firm kWh | 78,840,000 | 78,840,000 | 2.3810 ¢ | $1,877,180 | $1,877,180 | 2.8140 ¢ | $2,218,558 |
| Firm kW | 108,000 | 108,000 | $12.27 | $1,325,160 | $1,325,160 | $14.50 | $1,566,000 |
| Excess kVar | 46,960 | 46,960 | $0.75 | $35,220 | $35,220 | $0.89 | $41,794 |
| Unbilled | | | | | | | |
| Total-Normalized | 78,840,000 | 78,840,000 | | $3,252,284 | $3,252,284 | | $3,843,752 |
| **Non-Firm** | | | | | | | |
| Customer Charges | | | | | | | |
| Non-Firm kWh | 907,279,000 | 1,256,245,801 | 2.3810 ¢ | $21,602,313 | $29,911,213 | 2.8140 ¢ | $35,350,757 |
| Non-Firm kW | 1,691,168 | 2,051,216 | $12.27 | $20,750,631 | $25,168,416 | $14.50 | $29,742,627 |
| Curtailed kWh | 47,949,117 | 50,087,510 | 2.3810 ¢ | $1,141,668 | $1,192,584 | 2.8140 ¢ | $1,409,463 |
| 'led | | | | | | | |
| -Normalized | 955,228,117 | 1,306,333,311 | | $43,494,612 | $56,272,213 | | $66,502,847 |
| | 1,034,068,117 | 1,385,173,311 | | $46,746,896 | $59,524,497 | | $70,346,599 |
| **SCHEDULE 401 - Nu-West** | | | | | | | |
| Customer Charges | 12 | 12 | $341.33 | $4,096 | $4,096 | $391.00 | $4,692 |
| HLH kWh (May-October) | 20,019,356 | 22,258,718 | 2.8080 ¢ | $562,144 | $625,025 | 3.2190 ¢ | $716,508 |
| HLH kWh (November-April) | 21,484,401 | 23,718,456 | 2.3360 ¢ | $501,876 | $554,063 | 2.6780 ¢ | $635,180 |
| LLH kWh (May-October) | 24,500,644 | 27,241,282 | 2.1060 ¢ | $515,984 | $573,701 | 2.4150 ¢ | $657,877 |
| LLH kWh (November-April) | 25,572,399 | 28,231,544 | 2.1060 ¢ | $538,555 | $594,556 | 2.4150 ¢ | $681,792 |
| All kW (May-October) | 77,710 | 86,403 | $13.60 | $1,056,856 | $1,175,081 | $15.59 | $1,347,023 |
| All kW (November-April) | 77,610 | 85,680 | $10.97 | $851,382 | $939,910 | $12.58 | $1,077,854 |
| Unbilled | | | | | | | $0 |
| Total | 91,576,800 | 101,450,000 | | $4,030,893 | $4,466,432 | | $5,120,926 |
| **IDAHO JURISDICTIONAL TOTALS:** | | | | | | | |
| Subtotal | 2,935,665,190 | 3,325,873,311 | | $186,454,985 | $202,048,618 | | $226,915,997 |
| Temperature Adj | (16,814,810) | 0 | | ($884,714) | $0 | | $0 |
| Unbilled | 29,642,000 | 0 | | $1,764,000 | $0 | | $0 |
| AGA Revenue | | | | $684,548 | $684,548 | | $684,548 |
| Total | 2,948,492,380 | 3,325,873,311 | | $188,018,819 | $202,733,166 | | $227,600,545 |



EX 92

**IPUC Production Data Request 277**

Please compare the cost per mile of the Camp Williams-90th South line to the cost per mile for the Populus-Terminal line. Please explain the cost per mile difference between these two projects.

**Response to IPUC Production Data Request 277**

The cost per line mile for each respective engineer/procure/construct (EPC) contract is shown below:

**Cost of Transmission Line/Mile (Engineer/Procure/Construct Contract Costs only)**

**90th South - Camp Williams**

| | EPC Value | Miles | Cost/Mile |
|---|---|---|---|
| 90th South - Camp Williams Double Circuit 345kV Line (New) | $ 22,273,842 | 11 | $ 2,024,895 |

**Populus-Terminal**

| | EPC Value | Miles | Cost/Mile |
|---|---|---|---|
| Populus-Terminal Double Circuit 345kV Line (New) | $ 486,573,336 | 131 | $ 3,714,300 |

Several significant differences between the two projects contribute to the cost/mile variance:

- Scale – Populus to Terminal involved building a 131 mile transmission line while the 90th South to Camp Williams project built an 11 mile transmission line adjacent to an existing transmission line. For Populus to Terminal the additional mileage and remote locations of much of the project added to and affected such items as:
  - Multiple location mobilization and demobilization charges
  - Larger storage and staging of materials
  - Longer delivery stage lengths from stores
  - Additional crew per diems due to remote locations
  - Human and equipment resource management
  - Overall project risk profile

- Terrain – The 90th South to Camp Williams project was along existing right-of-way through the Salt Lake Valley. This property did not include wetlands for the most part, and existing access roads were readily available.

Exh 93

The EPC contract for the Populus to Terminal project covered significant wetlands along the Great Salt Lake and other bodies of water, mountain terrain, and large tracts of rural/non-developed areas. The wetlands required permit adherence with requirements such as temporary, non-invasive roads; special washing locations; spill prevention backup systems; and significant restoration. The project required extensive access road construction and restoration. Mountain terrain required construction of access roads with significant cut and fill locations, many of which required restoration to mimic natural contours. The foundation requirements for Populus to Terminal across this variety of terrain involved significantly larger (up to 16' diameter by up to 120' deep full cased foundations) versus the shallower 30' to 40' foundations of 90th South to Camp Williams.

- Logistics - The logistics of managing materials and crews was significantly more complex for Populus to Terminal as compared to 90th South to Camp Williams. The 90th South to Camp Williams involved two to three crews while Populus to Terminal involved approximately 30 crews.

- Permitting Requirements – The Populus to Terminal conditional use permits had significantly more conditions under greater scrutiny than those of the 90th South to Camp Williams project. On average the seven conditional use permits (CUP's) for the Populus to Terminal project had approximately ten conditions. Willard City CUP alone contained 31 conditions including removal of all access roads and pads in hilly terrain. In addition to these CUP's, there was also a memorandum of agreement with the City of Elwood that required the construction of a road. In contrast, the 90th South to Camp Williams project required four CUP's with an average of approximately four conditions.

- Complexity of Work – Populus to Terminal involves numerous outage and coordination issues to integrate the new line with the existing transmission network with a significantly higher number of interconnection points as compared to 90th to Camp Williams. Differing complexities included the following:

  Populus-Terminal:
  - Environmental constraints: Construction of the Populus-Terminal line occurred in lands managed by the State and private organizations. These required strict construction windows. Areas included Brigham Face Wildlife Management Area, Willard Bay, Farmington Bay, and duck clubs. It also required construction through the Salt Lake City International Airport property.
  - Cross-overs: To prevent 345 kV crossings, PacifiCorp made use of two existing 345 kV lines on the Populus to Terminal project. Due to system

impact, these 345 kV outages had to be completed under a compressed schedule within a constrained time of the year.

- Jim Bridger Plant: The Populus to Terminal project interfaces with two 345 kV lines from the Jim Bridger power plant in Wyoming. To mitigate system impact, this sequence of work, as well as one of the two crossovers listed above, had to be performed during the power plant maintenance outages. As a result, this work was performed under schedule compression.
- Parrish-Terminal: In order to avoid the costs to acquire additional property and to avoid disturbing further wetlands on the Populus to Terminal project, PacifiCorp made use of an existing 230 kV line between the Terminal and Parrish Substations. This line was reconstructed to a 345 kV line configuration. Since this 230 kV line was a part of an n-1 loop, a sequence of intermittent outages was used to support this reconstruction in order to comply with NERC requirements. In addition, this line was positioned between an existing 345 kV line and an existing 138 kV line in the same corridor. Working conditions required significant safety and outage coordination.

<u>90th South-Camp Williams:</u>

- In contrast, the 90th South to Camp Williams construction sequence was unimpeded by any other lines, with the exception of a requirement to lower three poles of an existing 138 kV line in the spring of 2010. The outage sequence in the fall of 2010 does not require schedule compression as it is not dependent upon power plant outages. In addition, there is less work to be performed within the outage window, as only the new substation expansions are being energized with the existing portions of the substations remaining in-service.

Recordholder: Todd Jensen
Sponsor: To Be Determined